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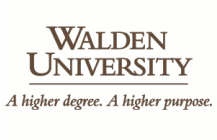

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Corporate Environmental Strategies for Balancing Profitability with Environmental Stewardship

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Walden University

College of Management and Technology

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Stephen Carmer

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2019

Abstract

Corporate Environmental Strategies for Balancing Profitability with Environmental Stewardship

by

Stephen Carmer

MS, University of Tennessee at Chattanooga, 2014

BS, Syracuse University, 1979

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2019

Abstract

In the United States, citizens concerned with climate change and income inequity scrutinize the activities of corporations. Sustainability and corporate social responsibility (CSR) have a critical role in business management, because stakeholders demand transparency in a company's operations. This correlation study, grounded in stakeholder theory, examined the relationship between environmental initiatives, CSR, and net profit for U.S. corporations. Participants included 96 companies with listing on either National Association of Securities Dealers Automated Quotations, or the New York Stock Exchange, or both, with and without evidence of CSR and environmental disclosures. The multiple regression analysis significantly predicted higher net profit for companies disclosing CSR information, with the statistical evidence demonstrating the importance of environmental and social responsibility, $F(2,93) = 31.650$, $p = .00$, $R^2 = .405$. The environmental variable was not significant at $p = .651$, while the CSR variable proved significant at $p = .04$, indicating a need for organizations to participate in CSR activities. Recommendations for further research entail exploring the return on assets, net profit ratio, and return on equity. Implications of study findings for social change include support for companies to participate in global reporting organizations and CSR activities.

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Dedication

This paper is dedicated to future generations who must endure the failures of past and present generations.

Acknowledgments

I acknowledge the faculty of Walden University who have served as guides toward completion of this study. I would also like to acknowledge family, friends, and faculty of Cleveland State Community College, Cleveland, Tennessee for their support and encouragement throughout the project.

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Section 1: Foundation of the Study

Concerned with environmental degradation and corporate social responsibility (CSR), stakeholder activism intended to force corporations into taking steps to *green* their operations can shape the decisions of business leaders (Perrault & Clark, 2016). Government authorities, stakeholders, and stockholders demand environmental performance, CSR, and profits from business leaders simultaneously despite the added cost of *greening* a company's operations (De Santis & Lasinio, 2016). In this study, I examined the relationship within U.S. industries between environmental initiatives, CSR, and profitability. The results of my study may aid business leaders in their decision-making concerning future expansion and product manufacturing with an eye on adopting sound environmental and CSR activities.

Background of the Problem

Concern for the environment and CSR has pressured business leaders into adopting new policies aimed at improving public perception of their operation (Espinola-Arredondo & Munoz-Garcia, 2016). Adapting to new environmental standards and CSR companies must restructure their manufacturing processes, participate in improving their community, and meet the expectations of stakeholders including growing regulatory requirements (Dahlmann, Branicki, & Brammer, 2017). Maintaining profitable operations for businesses often conflict with adhering to environmental regulations, initiatives, and CSR obligations (Espinola-Arredondo & Munoz-Garcia, 2016). Business leaders of smaller companies find difficulty raising the capital required to upgrade operations, threatening to reduce profitability by increased costs, yet the pressure from stakeholders

demanding environmental stewardship and CSR continues to grow (Bea, Pelham, & Yuko, 2015; Dekker & Hasso, 2016; Trumpp, Endrikat, Zopf, & Guenther, 2015).

Problem Statement

Business leaders are reluctant to undertake environmental initiatives intended to upgrade equipment and reduce resource consumption, as the added cost to the firm's operations can result in lower profitability (De Santis & Lasinio, 2016). The U.S. Environmental Protection Agency (2016) reported executives invested $13.7 billion to upgrade equipment and undertake other environmental initiatives intended to decrease pollution, resulting in reduced profitability for U.S. corporations. The general problem is some business leaders undertaking environmental modifications to improve their operations anticipate reduced profitability. The specific problem is business leaders in U.S. industries do not know the relationship between environmental initiatives, CSR activities, and profitability.

Purpose Statement

The purpose of this quantitative correlational study was to examine within U.S. industries the relationship between environmental initiatives, CSR activities, and profitability. The target population comprised archival data from industrial companies located in the United States. The independent variables were the companies' self-declared willingness to undertake environmental initiatives and CSR efforts as demonstrated in published disclosures. The dependent variable was the profitability of the company determined by their annual reports released in 2017 or 2018. This study may have implications for social change because businesses may reduce their environmental

footprint and improve their CSR activities if they can ascertain these actions will not impact profitability.

Nature of the Study

Quantitative research methods are used by researchers to examine relationships among variables and may reveal trends occurring within populations and establish facts by answering questions about the *what* and *how* aspect of a research topic (Barnham, 2015). The quantitative methodology was appropriate for this study because I examined within U.S. industries the relationship between environmental initiatives, CSR activities, and profitability. Qualitative researchers seek to explore strategic business processes or *why* companies do what they do, but qualitative methods may not reveal trends occurring within populations (Barnham, 2015), making the qualitative method unsuitable for my research question. Researchers using the mixed method techniques undertake both quantitative and qualitative methodology to explore and examine data for a deeper understanding of what companies are doing and why they are doing it (Barnham, 2015). The mixed method approach was unsuitable for this study as I examined the relationship between variables.

For this study, I chose a correlational design. Researchers may determine what relationships exist through the correlation of different variables (Barnham, 2015). As I sought to determine what relationship environmental initiatives and CSR activities have on profitability, the correlational design was appropriate for examining the relationship between independent and dependent variables defined in this study. Experimental and quasi-experimental designs determine the magnitude of cause and effect relationships

(Barnham, 2015). My intention for this study was to examine the relationship independent variables have on profitability making the alternative experimental and quasi-experimental designs inappropriate.

Research Question and Hypotheses

RQ: What is the relationship within U.S. industries between environmental initiatives, CSR activities, and profitability?

H_0: There is no significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability.

H_1: There is a significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability.

Theoretical Framework

Holding corporate managers to the greater responsibility of meeting the needs and expectations of more than just stockholders forms the basis of stakeholder theory as posited by Freeman (1984). Freeman specifically identified stakeholders as vendors, customers, employees, stockholders, and the local community. Each stakeholder has certain rights to benefit from a corporation's activities and the right to participate in the firm's decision-making activities (Freeman, 1984). Freeman's stakeholder theory primarily addressed profits and the requirement for companies to take into consideration groups extending beyond shareholders (Harrison & Wicks, 2013). Stakeholder theory did not adequately address environmental issues, as the theory became the basis of more recent theories such as CSR and triple bottom line (TBL) (Harrison & Wicks, 2013). TBL and CSR place social and environmental responsibilities on businesses in addition to

economic responsibilities (Harrison & Wicks, 2013). External variables stemming from social and environmental considerations can influence decision making among business leaders, but Harrison and Wicks (2013) indicated the extent of influence remains unclear.

Operational Definitions

Conscious capitalism: Companies embrace moral responsibility within the operations of their enterprise (Friedman, Friedman, & Edris, 2017).

Corporate governance: Board of director committees serving to guide business leaders toward appropriate social and environmental endeavors (Kock & Min, 2016).

Corporate social responsibility (CSR): Corporations must consider social, economic, and environmental needs (Harrison & Wicks, 2013).

Environmental initiatives: Efforts conducted by corporations to green operations and reduce the environmental footprint, resulting in reduced pollution and resource consumption (Madsen & Ulhøi, 2016).

Green economy: Considers the overall impact of business activities with limited carbon emissions, resources conservation, and the social needs of society (Claudia, 2015).

Profitability: A measure of success or failure for business activities derived by subtracting operating expenses from revenues (Krstanović & Buljan Barbača, 2016).

Assumptions, Limitations, and Delimitations

Researchers include assumptions, limitations, and delimitations in their research articles (Wohlin & Aurum, 2105). Managing the assumptions, limitations, and

delimitations may contribute to the validity of the study (Wohlin & Aurum, 2105). Assumptions, limitations, and delimitations of this study follow.

Assumptions

Information accepted without verification but considered factual may require assumptions (Wohlin & Aurum, 2105). In this study, I assumed disclosures provided by publicly traded U.S. corporations to contain factual summaries detailing the results of operations. There is no requirement for CSR reporting for publicly traded U.S. corporations (Kloviene & Speziale, 2014; Peters & Romi, 2015). For this study, I assumed the financial information and CSR disclosures faithfully represented the corporation's operations and performance.

Limitations

Limitations are issues beyond the researchers' control and may result in weaknesses in the outcome (Green, Tonidandel, & Cortina, 2016). One potential limitation of my study was data collected from large, publicly traded corporations restricted the study to one subset of business entities. Collecting proprietary information from smaller, privately owned firms may result in greater benefit except this financial data is not publicly available (Madsen & Ulhøi, 2016). Also, archival data used for this study may potentially result in different findings from information collected firsthand. Interpretation of the findings may also cause a reduction in the value of the study.

Delimitations

Actions not performed by the researcher resulting from scope limitations are delimitations (Newcomer, Marion, & Earnhardt, 2014). Descriptions of the contents of

the study concerning the depth, subjects, and methods also define the delimitations and determine the boundaries for interpreting the results of the study (Leedy & Ormrod, 2012; Tabachnick & Fidell, 2007). The delimitations of this study included the inclusion of publicly traded companies as the availability of voluntary disclosures provided by the company precluded the potential of examining smaller organizations.

Significance of the Study

The findings from my study could be significant to business because, according to De Santis and Lasinio (2016), pressures from stakeholders requiring greater attention to environmental and CSR issues concern business leaders. Business leaders are also concerned with the profitability of their organization and are reluctant to invest additional capital beyond the U.S. Environmental Protection Agency regulations (De Santis & Lasinio, 2016). Lampikoski, Westerlund, Rajala, and Moller (2014) indicated business leaders have fallen under greater scrutiny to contend with environmental issues in their business strategy resulting in a shift from compliance with environmental regulations to proactively undertaking *greening* initiatives despite the potential for reduced profitability. Outlined by Lampikoski et al., the contention between adopting green practices and the primary business goal of creating wealth for business investors continues to confound business leaders' strategies. Business leaders cannot ignore the opportunities for green innovation and reshape their processes with environmental sustainability objectives (Lampikoski et al., 2014). The concern for environmental issues is developing globally, yet little information and research is available for companies to utilize as guidance (Bebbington, Unerman, & O'Dwyer, 2014). The contribution to positive social change

may come from revealing how environmental initiatives and CSR activities can result in greater profitability from improved business operations and enhanced stakeholder relations while benefiting communities.

A Review of the Professional and Academic Literature

A review of the literature required an intensive search through a variety of academic and professional publications. Primarily, the two independent variables of environmental initiatives and CSR activities and the dependent variable of profitability composed the research with the goal of accumulating the latest knowledge on the topics. Journals such as *Journal of Business Ethics, Business Ethics Quarterly, Accounting Horizons, Corporate Social Responsibility & Environmental Management, Journal of Accounting Studies,* and *Journal of Agricultural & Environmental Ethics* yielded many recent articles worthy of inclusion in the literature review.

The literature review contains five sections. The first section restates the purpose statement of the study and hypotheses in the application to the applied business problem. Section 2 contains literature concerning my theoretical framework of stakeholder theory. Literature delving into the independent variables of environmental initiatives and CSR activities compose the third and fourth sections. The fifth section explores the meaning of the concept of profitability and the measurement of profits.

Literature Search Strategy

Reviewing the academic literature required utilizing a variety of sources, including academic journals and professional trade publications. Since 2014, many scholarly articles addressing environmental issues became available while at the same

time professional publications relating to the accounting and management industries have addressed specific needs of enterprises in response to global climate change and increased stakeholder scrutiny. My initial searches used keywords such as *environmental, resource, climate change, sustainability, stakeholder*, and *shareholder* produced a significant number of articles and required narrowing down to articles focusing primarily on the variables under examination in my study.

Table 1

Frequency and Percentage of Sources Used in the Study

Reference type	≤ 5 years	> 5 years	Total	%
Peer reviewed articles	72	4	76	95
Other journal articles	2	1	3	66
Books		1	1	0
Total	74	6	80	93

Application to the Applied Business Problem

The purpose of the quantitative correlational study was to examine the relationship between environmental initiatives, resources conservation, and profitability. The target population comprised archival data from manufacturing businesses operating the United States. The independent variables were the company's self-declared willingness to undertake environmental initiative and CSR efforts as demonstrated in published sustainability reports. The dependent variable was the profitability of the company as determined by their annual reports over the most recent 2-year timespan.

This study may have implications for social change because of the need for a business leader to understand the financial impact and benefits of reducing their environmental footprint and participating in CSR activities. The research question of the study was:

RQ: What is the relationship within the U.S. industries between environmental initiatives, CSR activities, and profitability?

The study examined the following hypotheses:

H_0: There is no significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability.

H_1: There is a significant relationship within the U.S. industries between environmental initiatives, CSR activities, and profitability.

Stakeholder Theory

Stakeholder theory has gained prominence among academics and business leaders since Freeman (1984) introduced the theory. Before Freeman's seminal work into the responsibilities of corporations toward the larger group of stakeholders, Friedman (1970) had written extensively on the responsibilities of corporate management charging business leaders with the task of enhancing shareholder value. The conflicting theories became the subject of much debate as stakeholders gained importance among business leaders (Ferrero, Hoffman, & McNulty, 2014).

Ferrero et al. (2014) disputed the singular perspective of shareholder theory by discovering significant conflicts in Friedman's (1970) writings. Ferrero et al. challenged the validity of Friedman's shareholder theory by examining the concept of limited liability for shareholders. Under the protection of limited liability, a shareholder is only

liable for the investment made in a specific company, but at the same time entitled to the benefits the firm generates, such as a share of the profits realized through dividends and equity (Ferrero et al., 2014). The implication of limited liability under the rule of law (which Friedman supported) allows firms to internalize their benefits while externalizing their risks and social obligations (Ferrero et al., 2014). Ferrero et al. found the conflict unresolvable as firms permitted to externalize risks and social obligations, such as causing pollution to the common resources of clean air and clean water must not pay for the harm done. Shareholders shielded under the rules of limited liability cannot compensate for the environmental degradation caused by the corporations (Ferrero et al., 2014). For the community impacted by corporate activities seeking to externalize their costs, the situation becomes an involuntary exchange, but one sanctioned by the law for corporations exercising their property rights (Ferrero et al., 2014). According to Ferrero et al., these involuntary exchanges force shareholders to consider the needs of stakeholders, as these diverse groups would otherwise endure a situation of taxation without representation, such as required to remedy the pollution and environmental degradation caused by an organization's activities. While Friedman remained staunchly opposed to socialization and extending the responsibilities of corporations beyond shareholders, Friedman also did not embrace the notion companies could operate outside the rule of law (Ferrero et al., 2014; Freeman, 1984).

Continuing the argument between conflicting opinions of capitalism, Friedman et al. (2017) considered the words of the earlier Friedman (1970) who championed the belief of business leaders' only responsibility pertained to creating wealth for

shareholders but within the confines of the rules. In Friedman's expectations, a business could not be held responsible for social welfare, but instead, reward management with stock options to encourage business leaders to work toward increasing the price of the stock. Friedman (1970) cited greed as an important ingredient contributing to business success. Friedman et al. attributed the accounting scandals of the early 2000s, which included Enron and ultimately led to the Great Recession of 2008, to the greed the earlier Friedman championed as an important factor for financial success.

Friedman et al. (2017) divided capitalism into two approaches. The first was a moral form of capitalism known as conscious capitalism and the second followed the notion of greed as the best approach, which Friedman et al. condemned. Supporting Friedman et al.'s essay, the authors cited Yau and Brutoco's (2012) perspective of the destruction of wealth in the sole pursuit of profits with references to the failure of creating shareholder value in the years leading to the Great Recession of 2008, while leaving future generations to bear the costs. Friedman et al. discussed the importance of CSR and conscious capitalism but without mention of stakeholder theory, which proposed a new approach to the responsibilities of corporations some years earlier.

Stakeholder theory posited by Freeman (1984) indicated how business leaders held greater responsibility than producing profits for shareholders. Freeman identified a broad range of interested parties, including customers, vendors, employees, stockholders, and the local community as stakeholders to whom management held a responsibility to consider when developing strategic and operational plans. Freeman asserted each stakeholder held rights to benefit from a corporation's activities and the right to

participate in the firm's decision-making activities. Freeman's stakeholder theory primarily addressed profits and the requirement for companies to consider the interests of groups extending beyond shareholders, which at the time did not adequately address environmental issues (Harrison & Wicks, 2013). Freeman's stakeholder theory became the basis for CSR and TBL (Harrison & Wicks, 2013).

Kristen (2015) categorized the influencers of business into internal and external stakeholders. According to Kristen, internal and external stakeholders exist everywhere regardless of the type of enterprise. In the list of stakeholders, Kristen included employees, suppliers, external special interest groups, regulatory agencies, and customers. Kristen evaluated the influence of stakeholders on corporate activities from two perspectives, power and interest. When stakeholders have power over the corporation, such as significant leveraged influence, importance falls on monitoring the business policies, while those with interest in the corporation's activities monitor both policies and the framework by which the company operates (Kristen, 2015). Kristen asserted the importance of stakeholder's influence as having a direct effect on the firm's business policies. The direct influence may result from voting rights to modify the business' strategic plans, (Kristen, 2015).

In contrast to Kristen (2015), Hoque, Clarke, and Huang (2016) cited situations where stakeholders had little influence over corporate operations, particularly in developing economies where many diverse factors relegate environmental and safety issues to the sidelines. Hoque et al. cited the collapse of the Rana Plaza in Dhaka, Bangladesh, as a prime example where stakeholders had little influence over substandard

safety issues prevalent at the time of the industrial accident. Hoque et al. attributed the situation in Bangladesh where there was pollution and substandard safety conditions to the lack of influence stakeholders have over profit-seeking organizations.

Stakeholder disclosures. Stakeholder theory continues to drive companies toward making statements intended to demonstrate their commitment to CSR. Information about a company's reputation to predict how a company will perform in the future is obtained by stakeholders through voluntary CSR disclosures (Axjonow, Ernstberger, & Pott, 2018). CSR disclosures exceed financial reports, as the information provided relates to the company's social and environmental performance (Axjonow et al., 2018). Crilly, Hansen, and Zollo (2016) posited not all firms are honest in their self-evaluation of issues important to stakeholders. Crilly et al. attempted to determine the impact company's claims have on external stakeholders by evaluating two groups. Crilly et al.'s first group included companies labeled as implementers with verified CSR policies. Crilly et al.'s second group include companies making representations, but without the CSR programs they claim to have undertaken, labeled as decouplers. Evaluating the use of language as a means of glossing over the actual CSR activities of a company, Crilly et al. explored how stakeholders interpret the claims of organizations. In the findings from their mixed-method inquiry, Crilly et al. were able to conclude companies using explicit language depicting their CSR efforts were among the group of companies considered as implementers. Crilly et al. found companies attempting to hide the truth of their organization's efforts or those with over-generalizations about their CSR activities but not fulfilling those promises used implicit language intended to confuse

stakeholders. Crilly et al. also determined stakeholders with specialized knowledge were able to see through the assertions made by organizations who decoupled their CSR claims from actual performance. Other findings in Crilly et al.'s study indicated companies attempting to deceive stakeholders confused company managers, further exacerbating efforts to implement CSR policies as the managers did not understand their roles in the process.

Strand and Freeman (2015) extended the dialog on stakeholder theory with a historical review and examination of the practices of Scandinavian companies seeking to obtain a cooperative advantage with stakeholder participation. According to Strand and Freeman, stakeholder theory originated in the Scandinavian countries of Denmark, Sweden, Norway, and Finland some years before the concept achieved global popularity. Strand and Freeman noted stakeholder theory is a collection of ideas primarily serving to guide companies toward creating value beyond returning profits to shareholders. On a positive note, Strand and Freeman demonstrated stakeholder interests achieved by a collection of companies working together created an advantage moving beyond just a competitive one. As a tenet of stakeholder theory seeks to promote a balanced approach to business, sustainability is one aspect addressing social, economic, and environmental issues such as how today's activities will not imperil the ability of future generations to provide for themselves (Strand & Freeman, 2015).

Corporate governance. Kock and Min (2016) investigated the role corporate governance played in reducing environmental impacts with the outcome of strong corporate governance leading to lower pollution levels, but they also determined

stakeholder influence resulted in the same level of reduction. Despite the impact corporate governance has on the operations of a firm subject to the principles of civil law (as opposed to common law), the authors determined legal requirements took precedence over the intentions of corporate governance committees. The authors posited the difference between common law and civil law countries relates to the stockholder and stakeholder relationship. Common law countries respect property rights and afford the property owner the privilege of utilizing their property as they see fit, generally to enhance stockholder value (Kock & Min, 2016). Civil law countries combine property utilization with social responsibility (Kock & Min, 2016). As Kock and Min suggested, companies with strong corporate governance policies within civil law orientated countries are more likely to achieve environmentally friendly operations.

Environmental Initiatives

Claudia (2015) addressed the *green economy* as one with limited carbon releases into the atmosphere, utilizes resources efficiently and takes into consideration the social context within the region of operation. Accordingly, Claudia paired the green economy with the concept of sustainability, requiring businesses to consider the impact of their operation through social and environmental objectives. Economic development in Claudia's opinion led to the depletion of natural resources, created pollution, and impacted ecosystems resulting in ecologic scarcity. Each industry has an impact on ecology from the consumption of clean water, reduction of forests, and the increasing demand for agriculture to meet the needs of population growth, among other major industries, such as fishing, manufacturing, waste handling, and energy (Claudia, 2015).

Related to increasing concern over human activities and the potential for climate change, concern for the environmental impacts has risen rapidly (Claudia, 2015). Motivating companies into undertaking environmental initiatives to *green* their operations is the realization the unconstrained consumption of resources will limit business operations in the future, and those companies embracing the cause of protecting the environment will become the leading companies of the future (Claudia, 2015). Dahlmann et al. (2017) indicated the challenges of addressing environmental concerns are daunting with a significant variance to commitment among business leaders resulting from technological and managerial challenges.

Historically, research into the corporate activities and environmental initiatives have primarily focused on large companies with little attention paid to small and medium-sized business enterprises (SMEs; Madsen & Ulhøi, 2016). As noted by Madsen and Ulhøi (2016), SMEs account for a greater share of industrial activities in the aggregate than large firms, reaffirming the need to learn more about the operations of smaller enterprises. Environmental initiatives among both large and small enterprises depend upon the return on investment required to recover the capital used to accomplish the task (Madsen & Ulhøi, 2016). According to Madsen and Ulhøi, as interest in CSR, sustainability, and environmental stewardship rose, many operations invested lightly into these issues to improve their standing within the community, but much of the investment aimed at easily attained targets. By targeting easily achieved goals the companies were able to appease stakeholders, but beyond those quickly available means of reducing the firm's environmental footprint, most companies merely went as far as regulations in their

region of operation required (Madsen & Ulhøi, 2016). In Madsen and Ulhøi's estimation, the effect of environmental initiatives among larger firms with extensive financial resources to invest is more noticeable than among SMEs. Larger firms are more susceptible to negative press and public scrutiny, leading to utilization of environmental initiatives as a means of promoting the firms' reputation, particularly to avoid exposure by the media for their shortcomings (Madsen & Ulhøi, 2016). Company managers have also realized a gain in their financial performance in the growth and acceptance of undertaking restructuring of processes (Madsen & Ulhøi, 2016). Many smaller operations cannot fully realize competitive advantages resulting in long-term financial benefits from undertaking overhauls of their processes for environmental reasons beyond those required by regulations (Madsen & Ulhøi, 2016).

Most of the progress on reducing pollution involves an easily achieved target of emissions reduction (Madsen & Ulhøi, 2016). Expanding beyond emissions reduction, the relationship between undertaking environmental initiatives and improving the company's financial performance remains unclear (Madsen & Ulhøi, 2016). Madsen and Ulhøi pointed out environmental initiatives have not necessarily led to greater benefits such as financial performance or reputation for SMEs. The solution indicated by Madsen and Ulhøi is pairing environmental initiatives with strategic goals rather than pursuing moral and ethical goals. This approach, as Madsen and Ulhøi posited, would drive companies from the question of whether environmental initiatives pay off to one evaluating what would drive environmental initiatives into paying off. As Madsen and Ulhøi argued, larger firms are more capable of assessing the benefits of environmental

initiatives than SMEs, yet small enterprises compose most of the global industrial activity.

Trumpp et al. (2015) indicated corporate environmental performance (CEP) had been the topic of research for several decades, but a universally accepted definition and methods of evaluation of CEP remain undeveloped by researchers. Trumpp et al. indicated the possibility CEP refers to an organizations' effort to green operations and how resource conservation activities can reduce waste and result in savings to the organization reflected in the firms' financial performance. According to the authors, the second direction of research examined how CEP guides sustainability and environmental disclosures (Trumpp et al., 2015). Trumpp et al. proposed research into CEP considers two factors, environmental management performance detailing the organizations' environmental policy, and environmental operational performance quantifying the results of the company's environmental activities. Trumpp et al.'s research identified five indicators contributing to CEP concerning environmental management performance, which are environmental policy, objectives, processes, monitoring, and organizational structure. While Trumpp et al. failed to define CEP, their research provided a direction for future research into environmental sustainability. Trumpp et al. also established the existence of many indicators of environmental operational performance, as environmental performance has more than one aspect of management to consider.

Sands and Ki-Hoon (2015) investigated the benefits of environmental accounting as contributing factors intended for enhancing operations and achieving sustainability. Sands and Ki-Hoon proposed environmental management accounting practices quantify

environmental impacts, result in improved reporting, aid in gathering information, help managers identify risks and opportunities, and provide measurements used for evaluating operations.

De Santis and Lasinio (2016) recognized environmental initiatives add cost to a firm's operations and can impact growth and employment negatively. De Santis and Lasinio also recognized the benefits of environmental innovation as a source of competitive opportunities. De Santis and Lasinio investigated the impact of environmental regulations on manufacturing operations and found market-based performance measures effective in spurring companies to seek out innovative solutions with the goal of minimizing costs. De Santis and Lasinio described market-based solutions to environmental problems including emission taxation and trade programs intended to curb pollution. De Santis and Lasinio indicated technological standards had not worked as effectively as market-based standards, as only market-based standards left the freedom to determine the best actions for the company's management.

Cai, Cui, and Jo (2016) investigated the impact of corporate environmental responsibility (CER) and risk perceived by business management. Cai et al. noted U.S. corporate managers tend toward risk aversion while CER efforts work toward reducing risk, which produced a favorable correlation, particularly among manufacturers. Cai et al. analyzed data for U.S. companies and determined a strong inverse relationship between risk and CER activities, which indicated managements' concern over failing to adopt environmental standards in their operations. Cai et al. linked CER as an essential policy with CSR. According to Cai et al., improper management of CER can result in investor

retaliation and a significant lowering of the company's capitalization value. Cai et al. noted CER is still a developing concept concerning practices, procedures, and performance evaluations.

Endrikat (2016) researched the fundamental question of what impact going green has on the company's financial performance. Endrikat also determined how positive and negative disclosures impacted a firm's market position and found a positive relation between valuation and performance, but with a larger impact on the company involving negative information. Endrikat attributed the increased impact of negative information to several established theories, including agency theory, where investors have limited information about management practices and intentions. Endrikat indicated the release of environmental disclosures and policies, both positive and negative, are signals serving to close the asymmetry of information between investors and management.

International research by Jo, Kim, and Park (2015) indicated a 1 to 2-year horizon before environmental initiatives intended to reduce costs and consumption impact the financial performance of a company. Resulting from the long lag between instituting environmental programs and releasing benefits, management may be reluctant to invest the capital required (Jo et al., 2015). Jo et al. determined companies located in developed markets will realize a faster return for the investments than companies located in less developed global regions, particularly in the financial service industry. Of interest in Jo et al.'s study is the impact of stakeholders on leadership within the financial services industries. Potential negative criticism from stakeholders can influence business leaders to adopt social and environmental practices and will guide decisions made by loan

officials when providing funding for clients (Jo et al., 2015). Negative environmental disclosures made by clients reflect on the financial institution providing the funding for the business operations and could result in public criticism and new government regulations impairing the financial institutions' ability to operate (Jo et al., 2015). Jo et al. noted research into CSR and corporate financial performance is in the initial stages, and the research has not established a clear relationship.

Quantifying environmental impact. Bea et al. (2015) reviewed the different approaches used for evaluating environmental impacts. Some countries utilize a method known as emissions accounting, which quantifies pollutants caused by industrial activities (Bea et al., 2015). Other countries adopt an accounting method known as conventional national stock, which tracks production and capital stock with the assumption business activities will impact the environment (Bea et al., 2015). In the conventional national stock method, businesses seek to track the depletion of resources consumed in production processes (Bea et al., 2015). Green gross domestic product (GDP), as reviewed by Bea et al., tracks the decline of the environment with the corresponding increase in the country's green GDP. The green GDP also seeks to track the monetary loss of biodiversity and causes of climate change, such as greenhouse gases (Bea et al., 2015). Traditionally, GDP indicators quantify a countries economic output but do not take into consideration the depletion of national resources and degradation of human and environmental well-being (Nahman, Mahumani, & de Lange, 2016). The narrow view of GDP drives proponents of greening the economy toward attempting to define the green GDP as a means of quantifying all aspects of a nations' output including

the social and environmental costs (Nahman et al., 2016). Internal environmental accounting addresses decision-making and resource conservation within the company, whereas external environmental accounting makes information available to the public as a component of financial reporting (Bea et al., 2015).

Accounting for environmental issues. Mistry, Sharma, and Low (2014) addressed sustainability issues from a managerial accounting perspective and indicated internal accountants played a major role in developing this type of information. Mistry et al. indicated the role of the accountant would depend on their function within an organization, making a distinction between those accountants primarily involved with financial matters and those involved in internal controls. In any case, the accountant's goal would be to seek out ways in which the company can reduce its environmental footprint (Mistry et al., 2014).

Buxel, Esenduran, and Griffin (2015) indicated traditional business processes of designing products for consumption do not address the environmental impact of those products, as management has a limited understanding of environmental issues. Buxel et al. outlined the lifecycle of a product to include the obtaining and use of raw materials, the conversion of resources into products, and the final disposal of the product. For a manufacturer, several parts of the products' life cycle are beyond the lens through which managers evaluate their environmental impact (Buxel et al., 2015). Buxel et al. specifically identified raw material the company purchased from a supplier and the disposal stage of the product when it is no longer serviceable, as this responsibility falls on the end-user. Information about the raw material acquisition and disposal stages of the

cycle have not been of much concern to manufacturers traditionally, but with greater stakeholder scrutiny over environmental issues in recent years, management must take the entire life cycle of their products into consideration (Buxel et al., 2015). By conducting a complete life cycle assessment (LCA), management can identify environmentally costly products and make changes to the materials, design, and conversion processes to reduce the environmental impact (Buxel et al., 2015).

Grubert (2017) discussed life cycle assessment (LCA) as an analytical tool intended to guide businesses toward producing products with concern over the processes and final disposition. The LCA analysis raised questions concerning whether the guidelines are frameworks, rules, or some other directive business leaders must abide with (Grubert, 2017). Grubert advocated the need for companies to develop a standardized LCA addressing the economic, social, and environmental aspects of the impact of their profit-seeking activities. Buxel et al. (2015) outlined steps business leaders, and managerial accountants can use to implement LCA into their operations. Beginning with setting goals, Buxel et al., advocated companies define the intentions of their plan to narrow down the focus of the assessment. Step two, outlined by Buxel et al. defined the life cycle from start to disposal of their product(s) with detail analyses of every step involved in the cycle. Step three, Buxel et al. assessed the environmental impact for each of the processes identified in the previous stage. From this point, step four evaluates methods of improvement, potentially reducing the products' impact on the environment (Buxel et al., 2015). After completing the four steps, Buxel et al. (2015)

indicated using the LCA as a managerial tool to promote organizational learning and implement changes as needed.

Laine, Jarvinen, Hyvonen, and Kantola (2017) investigated published environmental disclosures where company managers provided information regarding expenditures and investments for environmental purposes. Laine et al. indicted how the information presented in environmental reports assembled by accountants may not represent the actions of management. Like financial reporting, environmental reporting requires professional judgment (Laine et al., 2017). Laine et al. questioned the value of environmental disclosures utilizing numbers to quantify expenditures as a means of demonstrating environmental responsibility. Laine et al. justified the rising cost of environmental protection as an obligatory cost of conducting business. Quantifying the cost of environmental protection is one means, according to Laine et al., companies can maintain their social standing within the region of operations. Laine et al. concluded the importance of environmental disclosures with quantifying information about costs and investments was important within the organization despite accountants struggling to provide numerical details. In the case study, Laine et al. noted how upper management disregarded the financial information provided by accountants, dismissing the quantitative details as meaningless.

Chandok and Singh (2017) cited industrial and business activities as the primary cause of deforestation, global warming, degradation of biodiversity, and various forms of pollution including those affecting water, air, noise, and sunlight. Chandok and Singh charged businesses with the responsibility toward environmental and social activities in

addition to generating profits. The trend toward adopting positive environmental and social policies as cited by Chandok and Singh is the result of moving from a shareholder perspective to the broader issue of stakeholders. As an important group, stakeholders are responsible for requiring accountability among companies despite the substantial expense involved (Chandok & Singh, 2017). As Chandok and Singh discussed costs, they referred to both the cost of equipment and resource management and the cost of preparing reports detailing their activities; the authors indicted a lack of a method for reporting these costs from an accounting perspective. Chandok and Singh also noted the lack of any accounting standards available for presenting the information in a universally accepted manner. Despite the lack of standards and limited guidance provided by the Financial Accounting Standards Board (FASB) and other global organizations, environmental reporting has improved in recent years particularly in response to stakeholders' demands (Chandok & Singh, 2017). Chandok and Singh concluded company size had a relationship with disclosures indicating companies with many stakeholders also released more information about their environmental practices. Of the other factors, Chandok and Singh investigated, the age of the company had a positive impact on disclosures, while profitability and governmental influences reduced the propensity to release information concerning environmental impacts and practices.

Biswas and O'Grady (2016) indicated the underutilization of environmental reporting resulted from managers disregarding the information given in public disclosures in favor of continuing business without making significant changes to operations. Biswas and O'Grady indicated a disconnect between environmental reporting and environmental

performance, which reflects the current assumption of companies avoiding engagement with sustainability issues. Among other problems with sustainability reporting, according to the Biswas and O'Grady, involved companies picking which sustainability/environmental activities to undertake as part of their profit-seeking motives. Biswas and O'Grady investigated the relationship of internal sustainability practices and external reporting practices by conducting a case study of a single company in New Zealand. Biswas and O'Grady's were able to conclude from their study internally realized benefits for adopting sustainability practices among managers. An additional benefit of adopting internal practices according to Biswas and O'Grady included the ability to make changes to operations quickly. Biswas and O'Grady attributed the improved performance to increased engagement among managers who wanted to accomplish more than produce an environmental report intended to appease stakeholders.

Fazzini and Dal Maso (2016) summarized how the capitalist system bears the brunt of the blame for environmental problems resulting from the primary goal of producing profits among businesses. The goal of producing profits is short-term and does not take into consideration long-term accomplishments resulting from environmental stewardship (Fazzini & Dal Maso, 2016). Fazzini and Dal Maso indicated the principle of shared value, whereby business activities address social needs, including environmental practices in addition to financial performance. Nonfinancial disclosures benefit corporations by informing stakeholders of business practices with the result of improving the company's public image (Fazzini & Dal Maso, 2016). Fazzini and Dal Maso investigated the benefit of utilizing assurance services to verify their environmental and

social responsibility claims and found companies disclosing environmental information were among the most highly valued firms. Fazzini and Dal Maso could not associate an increase in the company's financial value with the added verification of independent assurance. Fazzini and Dal Maso attributed the lack of incremental increase to assurance services, which have not reached mainstream practices in the United States, and the practice will not add any credibility to the company's environmental disclosures.

Concurring with Fazzini and Dal Maso (2106) study, Qiu, Shaukat, and Tharyan (2016) were not able to determine any linkage between environmental disclosures and company profitability. Qiu et al. found social disclosures held greater value to investors than environmental disclosures. Qiu et al. also indicated companies capable of spending large amounts of money on disclosures resulting in publishing extensive information reaped economic benefits from their efforts. The benefits realized by larger companies include attracting greater loyalty among employees, customers, and suppliers (Qiu et al., 2016).

Capitalization. Nezlobin, Reichelstein, and Wang (2015) investigated the role of management decisions in considering capital expenditures contributing to the firm's ability to produce products. Expensed out over the usage, costs of capital acquisitions may also decline in value over time (Nezlobin et al., 2015). The basis of investment decisions depends on the managements' strategic goals and the managers' ability to reconcile the cost of capital against future earnings (Nezlobin et al., 2015). Assets operating with greater efficiency, producing a higher yield of products, and minimizing the use of supporting resources are essential for reducing a company's environmental

footprint (Nezlobin et al., 2015). Nezlobin et al. recognized the need for managerial accountants to convince business leaders toward making the right decisions when approving the purchase of capital assets if the decisions align with the company's goals. If the company intends to improve on their environmental footprint corresponds to the purchase of expensive equipment the accountant needs to prove the added value in the long run particularly if a cost saving is evident (Nezlobin et al., 2015).

Shahidullah and Haque (2015) indicated microfinancing provided funding for SMEs, but only addressed economic issues with little attention paid by investors to environmental concerns. Shahidullah and Haque advocated the integration of green issues into the funding plans as a method of improving the environmental performance for the benefit of local communities. Reviewing the theory of developmentalism Shahidullah and Haque cited as un-under-developing tasks, described as the slow shift toward new goals addressing sustainability at the local level directed at reducing poverty. An area of research proposed by Shahidullah and Haque lies in determining why entrepreneurs choose or not choose to incorporate environmental plans in their business proposals, particularly in third world regions.

Reichelstein and Rohlfing-Bastian (2015) explored capital investments from the perspective of managerial accountants. Among the primary purposes of managerial accounting is to develop cost schedules, determine the price of products and services, and to calculate the return on investment (ROI) (Reichelstein & Rohlfing-Bastian, 2015). As equipment purchasing requires financing, operating expenses, and other costs associated with upkeep, the authors proposed levelized product cost (LC) as a means of cost

evaluation. Reichelstein and Rohlfing-Bastian pointed out determining long-run marginal costs difficult for companies requiring an upfront investment in infrastructure and manufacturing equipment. Questions, such as joint costs, the potential for idling facilities, and price volatility over the long-run complicates the calculations required to determine a return on investment over time (Reichelstein & Rohlfing-Bastian, 2015). Reichelstein and Rohlfing-Bastian indicated utilizing the discounted cash flows method for long-term decisions. As a substitute for either incremental costs or discounted cash flows, the method of using levelized product costs can provide information to decision makers (Reichelstein & Rohlfing-Bastian, 2015). One problem with the full costing method is expenses change over time, particularly depreciation the authors indicated resulted in a lower cost per unit over time. Reconciling the difference between full costing and levelized product costs requires the addition of interest expenses into the equation (Reichelstein & Rohlfing-Bastian, 2015).

Nonfinancial interests. As the purpose of business is to maximize the financial interest of shareholders, companies have recognized the need to consider other nonfinancial benefits as a critical aspect of their long-term strategy (Mellat-Parast, 2014). Stakeholder theory views the activities of the business as extending beyond just creating shareholder value to include creating value for stakeholders (Mellat-Parast, 2014). Stakeholders involve the community, employees, suppliers, customers, governmental agencies, and other groups do not represent the shareholders of the company (Guenther, Guenther, Schiemann, & Weber, 2016). Increasingly, management must consider stakeholder issues when making strategic and operational decisions (Guenther et al.,

2016). Neron (2015) indicated stakeholders had reshaped the goal of businesses as diverse groups seek to guide business leaders into making ethical choices. Neron argued this is not the purpose of business, but the result of a trend placing stakeholder management at the forefront of management practices and ethics.

Guenther et al. (2016) summarized how employees monitor decision-making involving environmental issues. Resulting from employees' concerns company management is under greater pressure to address stakeholder interests in public disclosures (Guenther et al., 2016). Specifically, Guenther et al. viewed the impact of stakeholders' influence on carbon emissions as a primary cause of global climate change. Guenther et al. defined stakeholder relevance as the influence different nonfinancial groups have on managements' decisions. Employees and customers have caused companies to disclose their carbon emissions and adopt policies seeking to reduce the company's footprint indicating strong stakeholder relevance in influencing management (Guenther et al., 2016).

Attempting to prove the relationships between environmental performance and disclosure has produced no substantial evidence between these variables, as researchers have found positive, negative, and insignificant correlations (Guenther et al., 2016). The authors' quantitative research revealed a positive relationship between stakeholders' relevance and company disclosures of carbon emission data indicating stakeholders have significant influence over decisions made by management.

Mellat-Parast (2014) indicated an overlooked area of stakeholder research involved rendering services and product production. As most research evaluated how

companies interact with external stakeholders, Mellat-Parast explored the topic of CSR from an internal perspective with emphasis on operations and product production. Mellat-Parast attributed the research gap resulting from the perspective of CSR as a strategic aspect of corporate planning with little attention paid to the impact the company's operations has on the environment. At the operational level is where the company can develop specific plans and processes aligning with CSR strategies (Mellat-Parast, 2014). By adding new sustainability practices to existing processes, Mellat-Parast indicated greater success when upgrading existing operation than when engineering new processes. Improving processes leads to quality citizenship, which is a subset of CSR with a narrower focus on responsibility toward the community on behalf of the company (Mellat-Parast, 2014).

Resource conservation. Resources are ingredients required for the productive operations of an enterprise, whether in the manufacturing, sales, or service sectors of the economy (Cecchini, Leitch, & Strobel, 2015). Resources stretch from human expertise, intellectual property, political influence, technical abilities, financial capability, real estate, and raw materials (among other resources) (Cecchini et al., 2015). The combination of available resources creates the strategic capacity of firms to produce and sell a product or provide a service (Cecchini et al., 2015). Resources represent costs to companies, but firms able to acquire scarce and potentially valuable commodities may realize a competitive advantage resulting in abnormally high financial returns (Cecchini et al., 2015). Utilizing resources companies create value for customers, referred to as the value chain, an essential component of business viability and sustainability (Cecchini et

al., 2015). Lanivich (2015) equated the loss of resources for businesses with bankruptcy, as the firm would no longer be able to bring a product to the marketplace. Managing resource acquisition and remedial environmental restoration costs, such as after strip mining or harvesting forests, mitigates the financial benefits companies realize in the long-term, leading firms to consider their environmental impact as a component of their strategic planning and product pricing (Vorlaufer, Ibanez, Juanda, & Wollni, 2017). Consequently, the consumption of resources and exploitation of the environment comes with a cost beyond just acquiring the raw materials, requiring the need for conservation (Vorlaufer et al., 2017).

Jianhua and Sen (2018) attributed higher cost and environmental damage to the Tokyo Electric Power Company for not recognizing the harm done when the cooling system of the Fukushima Daiichi nuclear reactor failed following the earthquake in March of 2011. Jianhua and Sen attributed the lack of disclosures to the public following the catastrophic environmental disaster at the Fukushima Daiichi nuclear plant led to significant negative publicity for the company and brought into question the firm's environmental practices. In contrast, Jianhua and Sen cited another example where timely disclosure after the November 2005 explosion of the CNPC Jilin Chemical Branch helped mitigate the environmental consequences and the company's image. Jianhua and Sen believed environmental disclosures could help improve the company's financial performance. From a resource consumption perspective, Jianhua and Sen noted several examples of companies adopting environmental programs aimed at reducing resource consumption and energy conservation resulted in significant benefits to the firms. In one

case, Shanghai Fosun Pharmaceutical Co., Ltd resource policies resulted in an increase in production of 14 million units with an input savings of nearly 5 million units after two years (Jianhua & Sen, 2018). In the second case, Mitsubishi Electric was able to save almost 118% worth of resources in a single year (Jianhua & Sen, 2018). Jianhua and Sen concluded how attention to environmental issues might increase the demand for a company's products and improve profitability through innovation and waste reduction.

Martin-de Castro, Amores-Salvado, and Navas-Lopez (2016) equated pollution as an economic waste and indicator of production inefficiencies. Controlling waste and improving production can potentially drive down costs and improve profitability (Martin-de Castro et al., 2016). Describing the natural-resource-based view (NRBV), Martin-de Castro et al. proposed how the current consumption of natural resources will eventually lead to scarcity and greater market competition, in turn yielding new business opportunities for firms willing to reduce their waste and consumption of resources. Three strategies will guide companies toward greater firm performance including pollution prevention through waste reduction, life-cycle analysis for the product value chain, and sustainable development to improve the TBL (Martin-de Castro et al., 2016). One possible hindrance to establishing a relationship between profitability and environmental initiatives is the lengthy time of implementation of policies and the realization of benefits for companies attempting to green their operations (Martin-de Castro et al., 2016).

Changing environmental conditions and resource availability constrain a company's ability to obtain required raw materials as global awareness of climate change continues to evolve (Weigelt & Shittu, 2016). Weigelt and Shittu (2016) recognized how

the resource-based view (RBV) had reformed strategic plans among business leaders as government policies and global competition reshape the marketplace. Competitive factors and regulatory policies weigh-in as firms seek to acquire both the intangible and tangible resources required for their operation (Weigelt & Shittu, 2016). Acquiring resources is an external driver resulting in uncertainty and potential risk for companies exasperated by growing global concern over climate change (Weigelt & Shittu, 2016). Command and control regulatory policies can limit the availability of essential resources create an escalation of resource pricing (Weigelt & Shittu, 2016). The development of new resources with benefits of improved environmental and production capacities can render older technologies and processes obsolete requiring new capital investments for existing companies to remain competitive in the marketplace (Weigelt & Shittu, 2016).

In response to growing concerns, regulations have expanded substantially with the intention of mitigating the consumption of resources, release of pollution, and degradation of the environment (Wu, 2017). Companies must take into consideration products beyond manufacturing them to ensuring their goods are eco-friendly both in response to growing regulations and consumer demands (Wu, 2017). Companies adopting measures to improve environmental performance can reap the benefits of lower operating cost, stakeholder support, and avoidance of costly remedial responsibilities, such as occurs when a firm must clean up pollution caused by their operations (Wu, 2017). The empirical evidence remains unclear as past studies have shown both a positive and negative correlation of environmental innovation and financial performance among companies adopting such programs (Wu, 2017).

The resource-based view provides companies the capacity to source raw materials and gain a competitive advantage in the marketplace, but simultaneously transaction-cost economics allows companies to achieve economies of scale resulting in cost efficiency for their operations (Tressin, Richter, Schlaegel, & Midgley, 2016). The two approaches work to achieve the strategic objectives of the company and result in the globalization of resource purchasing (Tressin et al., 2016). Acquiring resources globally requires varying strategies depending on whether the country of origin is developing or industrialized, each with risks potentially disrupting the supply chain (Tressin et al., 2016). According to Tressin et al. (2016), developing countries are among the most popular locations for acquiring resources, but also riskiest for political and economic instability.

Zwarthoed (2016) considered a future world following the extinction of natural resources and biodiversity. Filling the gap left behind by the loss of biodiversity and consumption of nonrenewable resources, humans would populate the natural world with plastic trees and electronic birds. Zwarthoed indicated how people would evolve to appreciate replicas of the nonhuman species as the presence of trees and birds would not define the perception of a good life for future generations. In contrast, Bakshi (2016) indicated new approaches to human expansion intended to save the planet by planting green spaces above and below buildings with the intention of revitalizing urban spaces no longer viable for other species such as plants, insect, and animals. Bakshi's approach for developing green spaces under buildings requires lifting structures on piers a minimum of eight feet above the ground.

Growing concern over environmental implications arising out of increasing demand for raw materials confront business (Kalverkamp & Raabe, 2018). Resulting from the degradation of the environment largely attributed to human activity, business leaders must find alternative sources of supply for required resources and mitigate waste (Kalverkamp & Raabe, 2018). A circular economy seeks to use resources more effectively while reducing waste and has become the focus of government regulations among European Union nations (Kalverkamp & Raabe, 2018). End of life regulations for automobiles seeks to recycle useful materials found in vehicles as a strategy intended to reduce waste before the disposal into landfills (Kalverkamp & Raabe, 2018). The policy of reuse salvages some of the value added during the initial product manufacturing realized through the collection of spare parts or remanufacturing schemes (Kalverkamp & Raabe, 2018). The economic value of recovered products depends on the intended usage, such as used parts directly consumed, used parts requiring reconditioning or remanufacturing, or used parts holding value in the materials (Kalverkamp & Raabe, 2018). Regulations have spread across the European Union and China but also to the United States with the 2015 passage of the Federal Vehicle Repair Cost Savings Act (Kalverkamp & Raabe, 2018).

Sustainability. A single theory of sustainability management does not exist, as indicated by Starik and Kanashiro (2013). The challenge of developing a theory of sustainability lies in the obstacles of the topic covering more areas than simply business management (Starik & Kanashiro, 2013). The Brundtland Commission (1987) developed a concept of sustainability as guidelines advocating activities performed today will not

imperil the survival of future generations applied to social, economic, and environmental contexts. For business organizations, sustainability issues require the attention of business leaders with the knowledge of today's companies as highly competitive and challenged to remain feasible as an ongoing concern (Kloviene & Speziale, 2014).

Sustainability reporting is voluntary in the United States, and there is no requirement for verification by independent auditors (Kloviene & Speziale, 2014; Peters & Romi, 2015). Peters and Romi (2015) explored the relationship between large U.S. companies with environmental committees and chief sustainability officers and the use of assurance services for verifying the contents of sustainability reports. Peters and Romi's statistics indicated 93% of the largest companies are providing sustainability reports, with 59% offering some form of assurance. Peters and Romi indicated U.S. companies still lag the other regions of the world in providing environmental information.

DesJardins (2016) proposed the word *sustainability* synonymous with business practices covering an extensive range of considerations exceeding the actual meaning to such an extent the word has become generic in application. DesJardins advocated stringent requirements for companies hawking their activities as sustainable. James (2015) focused on the needs of SMEs preparing and publishing sustainability information with attention to the requirements of the global reporting initiatives (GRI). James (2015) pointed out many of the major global companies are reporting their sustainability efforts, but smaller privately-owned companies have not offered much information to the public.

Koo, Chung, and Ryoo (2014) explored the impact growing government regulations had on company profits and noted the challenges faced by management over

implementing green practices. The authors addressed the roles management must address to coordinate environmental improvements into operations throughout the organization and from the supply chain perspective. The authors established a framework seeking to understand organizational behavior concerning environmental issues. Measuring the extent of influence suppliers and cross-functional departments had on environmental performance, the researchers found a relationship in environmental practices with companies making a coordinated effort to improve their operations, as compared to those companies where no concerted effort existed within the company or among suppliers. The findings of Koo et al. (2014) quantitative research indicated a positive correlation between sustainability efforts and business performance in South Korea applicable to other regions of the world.

Hashmi, Damanhouri, and Rana (2015) identified eight activities U.S. corporations undertake to achieve greater sustainability in their operations. Activities include energy efficient methods of manufacturing, utilization of solar power, utilization of wind power, generating electricity through the biomass and hydropower, utilization of biofuels as an alternative to fossil fuels, exchanging carbon credits, and supporting environmental organizations (Hashmi et al., 2015). Hashmi et al. conducted a quantitative research study through surveys administrated to selected companies with a significant response rate from company officials. Hashmi et al.'s primary research goal determined whether U.S. companies pursued sustainability initiatives differently domestically and internationally. The study revealed U.S. companies are more likely to pursue environmental initiatives in six of the eight opportunities in the United States, but not

overseas. Hashmi et al. research indicated companies take environmental issues seriously in the United States but are avoiding taking responsibility for environmental stewardship overseas where public scrutiny is not as noticeable, and government regulations are lax in enforcing clean operations.

Corporate Social Responsibility

Lee, Cin, and Lee (2016) posited the environmental issue as the most important aspect of CSR defining strategic planning and market performance. Lee et al. believed most of the data regarding CSR has largely come from the United States, thus limiting information known about the financial performance of other global regions implementing new environmental standards. Most environmental issues, as Lee et al. proposed, fall upon local communities with limited impact globally. Companies manufacture unique products making the individual firm and the local context more valuable than pursuing a global perspective of environmental impact (Lee et al., 2016).

Perrault and Clark (2016) investigated the role of stakeholder activism on managements' environmental policies and found a correlation between the status of the activist and the impact on managerial decisions. Perrault and Clark determined stakeholders with significant financial holdings and activist with strong public approval influence managements' decisions over environmental practices. Perrault and Clark noted how companies wish to maintain a high approval rating and avoid negative media attention, with both attained by carefully maintaining relationships among high-status individuals and organizations. Perrault and Clark also noted how negative publicity could adversely impact a company's reputation wherever derived. Perrault and Clark attributed

managements' sensitivity to pressure from environmental activists as a threat to the firm's legitimacy and long-term sustainability. Concluded from their study, Perrault and Clark recommended firms establish and maintain a relationship with high-status individuals and organizations as a means of retaining an acceptable degree of legitimacy and respond quickly to environmental issues these individuals and organizations bring to managements' attention.

Dekker and Hasso (2016) investigated the relationship of family-owned firms with social standing and environmental stewardship in Australia. Dekker and Hasso's study produced unexpected results indicating family-owned firms have lower environmental performance when compared to nonfamily owned companies. One mitigating circumstance Dekker and Hasso uncovered resulted in higher environmental responsibility for family firms with significant social standing in their community. Dekker and Hasso found the existence of a trade-off for family-owned firms with the benefits of social standing on one end and the ability to raise the capital required for funding equipment and processes offering greater environmental benefits. From their findings, Dekker and Hasso determined publicly owned companies with a strong family influence will show greater environmental responsibility in their endeavors than privately owned companies even when social standing within the community is important to the family members. Dekker and Hasso illustrated the challenges small companies face when upgrading systems, machinery, and processes to take advantage of environmental efficiency and innovative technology, which in the end could result in significant savings but are simply out of reach of the family business with limited access to capital.

Oates (2016) advocated the need for a change in focus for corporations from primarily catering to the needs of shareholders to addressing the greater needs of society, including environmental stewardship. With the urgency of addressing climate change and precipitating changes in the way companies operate, Oates believed government policies aimed at curtailing pollution could not succeed alone but require joint responsibility shared with governments, consumers, and businesses. The Paris Agreement of 2015 underscored the need for significant changes aimed at reducing greenhouse gases and a willingness among political leaders to undertake the necessary steps and include business leaders in achieving stringent goals for the well-being of future generations (Oates, 2016).

Oates (2016) reviewed the increased presence of corporate governance while noting the system of boardroom oversight primarily addresses management tasks of appointing auditors, directors, determination of executive pay and incentives, and accurate financial reporting. Sustainability, as directed by corporate governance members, remained a secondary task, but one of increasing importance as stakeholder influence on business practices has gained importance (Oates, 2016). Sustainability, in Oates' perspective, lacks uniformity across the business community, but is more influential among publicly held companies and potentially not considered an important aspect for privately held firms. Oates indicated governance committees rarely discuss sustainability issues, particularly as profitability and stock value attached greater importance to shareholders in the short-term than long-range strategic planning addressing environmental and social aspects. Unfortunately, costs of undertaking social

and environmental initiatives are high, and while reduced consumption of resources and greater efficiency may mitigate some of the added expense, the short-term impact tends to drive decision-making over long-term benefits of sustainability and corporate reputation (Oates, 2016).

The framework of CSR reporting includes environmental and social issues with the social aspects primarily concerned with community, human rights, and labor issues (Col & Patel, 2019). Companies participating in CSR reporting may undertake the documentation of their social improvement programs for reasons including public relations, adding value to their company, and contributing to the wellbeing of their region(s) of operations (Cuervo-Cazurra, 2018). Cuervo-Cazurra indicated the rise of CSR reporting grew into standard business practice as stakeholders began scrutinizing the company's impact. Col and Patel indicated the potential for companies to use CSR reporting as a means of deflecting attention from tax avoidance schemes after 2006. Firms are not required to provide information concerning their social practices, and when disclosures are published, there is no requirement for independent attestation (Col & Patel, 2019). Lacking standards for CSR reporting, Col and Patel believed the practice had widened information asymmetry adding doubts to the value of the information companies disclose. With social issues and stakeholder activism on the rise, companies feel pressured to contribute in positive ways to social wellbeing by championing enrichment programs, funding causes, and improving the lives of their employees and community (Col & Patel, 2019).

Social issues cover a broad range of potential topics with different segments pursuing goals of CSR most directly impacted by their activities. Kunz (2018) tracked the CSR activities of companies in different industries and determined their CSR efforts matched the unique risks each company faced. Kunz indicated most of the largest international companies are offering CSR disclosure with a large percentage obtaining independent verification. The diversity of companies offering CSR disclosures covers nearly every industry and results in large monetary donations intended to help solve pressing social issues (Kunz, 2018). Reporting standards are not settled but with the rise of several organizations such as the Carbon Disclosure Project, Global Reporting Initiative, and International Organization for Standardization frameworks for CSR reporting have begun to take shape (Kunz). Collecting quantitative date, Kunz established the frequencies different industries participated in CSR reporting and determined the financial and energy industries as the largest participants. Among the lowest participates in CSR reporting include the apparel, aerospace, defense, engineering, and construction industries (Kunz).

Investors concerned with performance measures beyond financial information investigate the social activities of companies as part of their decision-making process (Muslu, Mutlu, Radhakrishnan, & Tsang, 2019). Without guidelines for the inclusion of information in CSR disclosures, the information provided by companies varies in quality and detail (Muslu et al., 2019). Muslu et al. indicated CSR disclosures concern investors only when the activities described by the reports impacted the financial performance of the company and found the existence of CSR information improves the company's

potential for obtaining financing from investors. Kunz (2018) determined high participation in CSR reporting from the financial industries may justify the need for participation among companies seeking capital from a financial institution. Muslu et al. research indicated an improvement in forecasting accuracy among companies disclosing CSR activities with the result of lower capital costs. Lanis and Richardson (2018) attributed a rise in CSR reporting among companies who participate in tax avoidance schemes as an alternative motivation.

Lanis and Richardson (2018) investigated companies who took advantage of legislative changes permitting U.S. companies to avoid taxes by maintaining operations in tax havens. The policy of avoiding U.S. taxes by opening branch offices in foreign lands with favorable tax rates appears in stark contrast to CSR activities, as paying taxes contributes to the wellbeing of society (Lanis & Richardson, 2018). Lanis and Richardson posited how companies who reduce their taxes increase their CSR activities as a method of obscuring their total contribution to society. Outside directors play an important role in advising company managers into minimizing the negative impact of lower taxes with CSR programs (Lanis & Richardson, 2018). This tendency reinforces the conflict between shareholder and stakeholder's interest as each group has different goals (Lanis & Richardson, 2018).

Contributing to the literature, El Ghoul, Guedhami, Nash, and Patel (2019) investigated the role of the free media and CSR reporting finding evidence supporting the position of robust CSR disclosures in global regions where the media is positioned to speak freely about the activities of their company. The media has a profound impact on

the company's reputation, encouraging companies to participate in costly CSR activities (El Ghoul et al., 2019). El Ghoul et al. believed positive corporate reputation among the most important factors corporate managers consider. The media is largely responsible for revealing inappropriate and irresponsible corporate behavior in regions where freedom of the press exists, causing changes in stakeholder perception much to the chagrin of corporate managers (El Ghoul et al., 2019). Consequently, the free media can become a driver for investment in social activities and influence the governance committees of corporations into guiding company managers into behaving in a socially responsible manner (El Ghoul et al., 2019). Likewise, when the media presence in a region is minimal or restricted by government regulations, less investment in social activities takes place (El Ghoul et al., 2019).

Profitability

Generating income represents the core activity of business and documents managements' performance over time (Marshall & Lennard, 2016). Krstanović and Buljan Barbača (2016) defined profit as the earnings of a business testifying to the success or failure of the company over a fiscal period. Krstanović and Buljan Barbača also reiterated the formula of gross profit resulting when revenues exceed expenses. In protest of evolving financial reporting exceeding accounting standards, Ciesielski and Henry (2017) accused companies of inventing new measures of profitability that either included or excluded monetary measures among the calculation of the company's earnings. The corruption of the reporting standards results in confusion and

disinformation intended to present the company's performance in a different light than what is permissible (Ciesielski & Henry, 2017).

Tulvinschi (2013) considered how profit is a debatable concept based on the difference between accounting profit, economic profit, and the performance of a company. Attempts to define the word *profit* have fallen short as no agreement exists on precisely what profit is referring to among academics (Tulvinschi, 2013). One possible definition of accounting profit is the result of revenues minus expenses, as evidenced by financial reporting (Tulvinschi, 2013). Accordingly, Tulvinschi recognized how company's revenue must exceed expenses to remain a viable and productive firm in the competitive marketplace. The pursuit of profits is the primary goal of all business organizations (Tulvinschi, 2013). Accounting profits are historical, reported regularly, and is a measure of the firm's accomplishments during preceding periods (Tulvinschi, 2013). Essentially data, accounting profits also guide managers' decisions over dividends, expansions, investments, and serve to review the performance of operations (Tulvinschi, 2013).

Similarly, a managerial accounting formula known as cost-volume-profit analysis (CVP) guides managers when making decisions involving the production of products (Said, 2016). CVP is an accounting function rather than an economic function (Said, 2016). Tulvinschi summarized how profits are a motivational factor among entrepreneurs and financiers, and the rational explanation for risk-taking.

Ikuo, Takao, and Yasunobu (2016) posited how accounting standards fail to define profitability and the usage of comprehensive income in the computation of net

income. Critical of the Financial Accounting Standards Board (FASB), Ikuo et al. charged the organization of deriving vague descriptions of the computation of earnings with the additional complication of including gains and losses within comprehensive income. Earnings result from changes in equity for business organizations from transactions and events acquired from external (nonowner) sources (Ikuo et al., 2016). Ikuo et al. proposed to define net income as changes in assets resulting from transactions not including those provided by owners. The proposed definition of comprehensive income includes transactions conducted by owners resulting in changes in net assets during the period (Ikuo et al., 2016). The proposed definitions would require the separate presentation of net income from comprehensive income, as Ikuo et al. posited net income is not part of comprehensive income.

Herciu and Ogrean (2017) explored profitability with an examination of the determining factors found on the balance sheet, income statement, and statement of cash flows. Ratios calculated from the balance sheet often determine profitability (Herciu & Ogrean, 2017). Common profitability ratios include return on assets (ROA), return on equity (ROE), and debt to equity ratios (Herciu & Ogrean, 2017). Debt to equity ratios discloses the nature of a company's capital structure, particularly when examined with equity (Herciu & Ogrean, 2017). Dupont system ratios include ROA and ROE, demonstrating the company's ability to utilize assets and equity for the generation of profits (Herciu & Ogrean, 2017). The optimum capital structure remains controversial among financial experts, but most companies utilize four types with the largest consisting of short-term senior debt, followed by long-term debt, convertible debt (converts to

stock), and finally equity as the smallest category representing the company's ownership (Herciu & Ogrean, 2017). Herciu and Ogrean posited capital structure does not necessarily lead to better financial performance.

Akbas, Chao, and Koch (2017) indicated current levels of profitability provide incomplete information and limit the ability among analyst to predict future performance rendering ratio analysis via various financial statements inadequate. Akbas et al. indicated variations in market conditions, gains or losses of competitive advantages, and technological advances as the primary cause for rising and declining profitability not often apparent in past company performance. Tracking financial performance through recent quarters potentially reflect the momentum of company activities and include the influence of unexpected earnings not necessarily repeated in the future (Akbas et al., 2017). Investors react irrationally to financial disclosures of profitability according to Akbas et al. with the result of increasing or decreasing market capitalization. Stockholders anticipate increases in equity and return on investment with firms demonstrating higher profitability and invest accordingly (Akbas et al., 2017). Disputing the importance of profitability, Salustri (2017) proposed proactively contending with changing business conditions of greater importance to the survivability of firms.

Profitability as a targeted goal remains the primary method business leaders utilize for short and long-term strategic planning (Deng & Yano, 2016). Targets from a managerial perspective include the quantities of products sold, revenues generated from the sales, and profits resulting from subtracting production expenses from revenues generated (Deng & Yano, 2016). Targets are an estimate or goal for the company annual

financial performance with sourcing costs a constraint upon the annual outcome (Deng & Yano, 2016). Target profits depend upon the cost of sourcing product, inventory requirements, and changing market conditions requiring management to adjust plans by working backward from predefined goals (Deng & Yano, 2016). As an incentive to accurately predict the sourcing needs, rewards in the form of bonuses awarded to managers for successfully reaching the rigorously defined targeted profits (Deng & Yano, 2016). Often for companies failing to reach targeted profits, the stock market reacts negatively adding burden to managers failing to maintain tight controls over situations beyond their ability to influence, such as unexpected increases in sourcing costs (Deng & Yano, 2016). Contingencies used by managers to mitigate changing market conditions include advance purchase contracts and buy-back agreements with the intention of limiting a company's exposure to unforeseen changes (Deng & Yano, 2016). Rigidly controlling costs may result in exploitation of workers along the supply chain in the pursuit of profits contributes to the challenges of income inequity prevalent in today's global economy (Yoshihara, 2017).

Transition

As an introduction to the topic of my doctoral study, Section 1 included the reason for my study and the intention of examining the relationship within U.S. industries between environmental initiatives, CSR activities, and profitability. The problem and purpose statement detailed the need for my study. Additional content in the introductory section of the doctoral study highlighted the nature of the study, the quantitative research question, the independent variables of environmental initiatives and CSR activities, and

the dependent variable of profitability. The sample participants of the study included publicly traded corporations operating in the United States.

In this literature review, I explored areas of research into trends of different concepts of corporate behavior including stakeholder theory, CSR, the greening of operations, sustainability, TBL, conscious capitalism, among other concepts. My literature review revealed recent trends in academic research and among corporate leaders embracing a growing need to act responsibly in the pursuit of profits. Research into the behavior of business leaders revealed a transformation of acting in the best interest of shareholders to undertaking substantial CSR initiatives to meet the needs of stakeholders.

Section 2 provides specific details of the project. Included is the restatement of the business problem under consideration, the role of the researcher, proposed participants, and a summary of the research method and design. Additional topics include ethical considerations, instrumentations, data collection, data analysis, and study validity. Section 3 presents the findings, detailed data analysis, recommendations for further research, and implications for social change.

Section 2: The Project

In Section 2, I present the plan for my study. In this section, I restate the purpose of the study, provide details concerning the role of myself as the researcher, and give details regarding participants. I also detail the research method and design, data collection, sampling, and analysis. The section concludes with an overview of the study validity.

Purpose Statement

The purpose of this quantitative correlational study was to examine within U.S. industries the relationship between environmental initiatives, CSR activities, and profitability. The target population comprised archival data from industrial companies located in the United States. The independent variables were the companies' self-declared willingness to undertake environmental initiatives and CSR efforts, as demonstrated in published disclosures. The dependent variable was the profitability of the company determined by their annual reports released in 2017 or 2018. This study may have implications for social change because businesses may reduce their environmental footprint and improve their CSR activities if they can ascertain these actions will not impact profitability.

Role of the Researcher

For my quantitative correlation study, I collected secondary data found in corporate disclosures. My role as the researcher required collecting data for the independent variables of environmental initiatives and CSR activities, as predictors of the dependent variable of profitability for corporations located within the United States.

Ensuring successful collection and analysis of data requires objectivity by researchers (Roulston & Shelton, 2015). The data collected must represent the information found in the corporate disclosures without embellishment or alteration.

Data collection begins with the selection of a suitable population and sample set corresponding to the research question (Wester, Borders, Boul, & Horton, 2013). My role in data collection involved retrieving data from corporate disclosures such as corporate annual reports, SEC filings, and documentation obtained from independent organizations. Additional tasks for completing my study included compiling the data into a useful form meeting the needs of the research question and ensuring the reliability and validity throughout the data collection stage. I intended to use archival data provided by corporations to form the sample set, and as Wisdom, Cavaleri, Onwuegbuzie, and Green (2012) suggested, data may be collected without any contact with the participants when conducting a quantitative examination. I have no financial interest in the public companies selected for this study.

The principles of the *Belmont Report* intend to protect human subjects, particularly vulnerable ones, such as students, prisoners, and individuals who feel pressured into participating in a research study (U.S. Department of Health and Human Services, 1979). This study did not involve human participants. I used secondary archival data available for public viewing from the corporations' SEC 10K filings and voluntary disclosures the companies provided. I used Microsoft Excel 2016 and IBM SPSS statistical software for collecting and analyzing the data. The intended testing process

determined if a significant relationship existed between the two independent variables, environmental initiatives and CSR activities, and the dependent variable of profitability.

Participants

The participants for my doctoral study included publicly traded corporations operating in the United States. Information such as financial reports and sustainability reports were readily available from reliable sources, including the SEC, independent websites, and the corporations' publications. The information was archival and did not require the use of human subjects. Secondary data analysis permits the generalization of findings and reduces ethical risks (Cornelissen, 2016). Usage of archival data was the appropriate method for evaluating the hypotheses in my study and, as indicated by Ebrahim et al. (2014), data collection techniques should conserve time, effort, and resources. In a similar study using secondary data, Cai and He (2014) evaluated the relationship between profitability reflected in equity value and environmental activities.

Research Method and Design

Research Method

I selected a quantitative methodology for my study because I intended to examine potential relationships between variables and test a hypothesis. Examining relationships with numerical data is the essence of quantitative methodology (Yilmaz, 2013). A statistical hypothesis within the framework of a theory requires quantitative methods (Trafimow, 2014). Developing and testing hypotheses requires quantitative methods when the data is numerical (Choy, 2014). Inferences made from the numerical data, derived from deductive reasoning, apply to quantitative studies (Anastas, 2014). As my

study depended on statistical analysis, the quantitative methodology was the most suitable means by which to conduct the research project.

Qualitative methods and mixed methods, each with different goals, are other ways to approach a research question (McCusker & Gunaydin, 2015). Using qualitative methodology, researchers explore individual experiences and evaluate how these experiences interact with the subjects' perspective (Thomas & Magilvy, 2011). Some qualitative research requires the researcher to use open-ended questions in the interview context to understand the subjects' reasoning (Park & Park, 2016). The mixed method approach is another primary research method (Ma, 2015). Conducting a mixed method study involves both quantitative and qualitative methodology (Taylor et al., 2016). Testing a theory with statistical data was the intention of this study rendering the qualitative methodology inappropriate. The mixed method approach involves the use of the qualitative methodology in addition to the quantitative method, making the mixed method approach inconsistent with the research goals of my study.

Research Design

For my study, I intended to examine the relationship between variables making the statistical regression design the best suited to accomplishing the research goals. Measuring variables with quantitative techniques may determine if there is a relationship between the variables (Curtis, Comiskey, & Dempsey, 2016). In the framework of a regression study, a researcher can use numeric data from the population of interest without further manipulation, thus establishing the potential for a relationship among the variables (Mekonnen, 2014; Rucker, McShane, & Preacher, 2015).

Researchers using an experimental design primarily study the interaction and outcome between factors (Barka et al., 2014; Rucker et al., 2015). In the experimental design, the researcher manipulates factors by changing the treatment among patients, such as by withholding or substituting one medication for another with the intention of determining if the outcomes of the different treatments vary (Barka et al., 2014; Rucker et al., 2015). Experimental designs are most often used to determine the best combination of variables rather than examining the relationship between variables (Callao, 2014). Researchers conduct experiments under controlled laboratory conditions but may choose a quasi-experimental design where the research conducted outside the laboratory more closely resembles real-world circumstances (Venkatesh, Brown, & Bala, 2013). The intent of an experimental and quasi-experimental design exceeded the intention of my research because this study would not involve the manipulation of variables or treatments.

Population and Sampling

The population consisted of publicly traded corporations in the United States. The number of annual reports and investigations into the existence of sustainability disclosures with environmental and CSR information required a minimum of 68 publicly traded corporations. I determined this population because the research question involved determining if a relationship between environmental initiatives, CSR activities, and profitably exists among U.S. corporations. I used nonprobability convenience sampling, as archival data was required, and there was no way of determining in advance which corporations would provide financial and sustainability reports. Acharya, Prakash,

Saxena, & Nigam (2013) indicated the need to use nonprobability sampling when the researcher lacks control over what information a third party may supply. Mukhtar (2015) indicated the use of convenience sampling, as the data is readily available for utilization by the researcher. Advantages of convenience sampling include lower cost of collecting data and reduced difficulty in administrating the study (Etikan, Musa, & Alkassim, 2016).

Peterson and Merunka (2014) stipulated convenience sampling might limit the ability to generalize the results and replicate the findings among different populations. A simple random sampling technique involves high cost and can introduce sampling errors (Kandola, Banner, O'Keefe-McCarthy, & Jassal, 2014). Given the limited population of publicly traded corporations located in the United States, limited research funding, and the requirement of a minimum of 68 samples, the convenience sampling method worked best for this study.

Determining an acceptable sample size must meet the criteria of both statistical viability and feasibility (Tabachnick & Fidell, 2007). Optimal sample size requires the knowledge of an acceptable level of significance, effect size, and power (Wisdom et al., 2012). Accidentally rejecting the true hypothesis, a Type I error, requires a low significance level to safeguard against this occurring (Faul, Erdfelder, Buchner, & Lang, 2009). The effect size measures the magnitude of association or differences in the statistical test (Tabachnick & Fidell, 2007). For this study, I used a significance level of .05, an effect size of .15, and a statistical power of .80. With these parameters, I used G*Power software (Version 3.1.10) and determined the sample size of 68.

Ethical Research

Ethical considerations concern the use of human subjects. As Snowden (2014) stipulated, research must remain harmless to individuals without discrimination and without violating the individual's privacy. According to the *Belmont Report* (U.S. Department of Health and Human Services, 1979), respect, beneficence, and justice form the basis of the top three principles of ethical research. When using human subjects, Kaczynski, Salmona, and Smith (2014) specified the ethical treatment of participants required informed consent, freedom from deception, maintaining the individual's privacy, and safeguarding the subjects' rights. Honesty, integrity, objectivity, and confidentiality require careful consideration when collecting data from participants (Wester et al., 2013).

Ethical risks do exist when utilizing secondary data (Johnston, 2014). Secondary data require minimal ethical attention, as the data for this study are publicly available (Parker, 2012). To minimize potential ethical risks, I collected data from financial and sustainability disclosures published by publicly traded corporations located in the United States. The information collected included net income and the presence of sustainability disclosures with information regarding the firms' environmental and CSR programs. When the data collected does not contain any confidential or proprietary information, the ethical risks are negligible (Butler, Martin, Perryman, & Upson, 2012). The data collected will be secured for 5 years in a password protected files as required by Walden University's research policy. During the 5-year retention period, only summaries of the statistical data will be available to interested individuals or organizations, and I will destroy the data after the expiration date.

Data Collection Instruments

Ensuring the data represents the researchers' goals requires the use of a reputable data collection instrument (Wisdom et al., 2012). For this quantitative study, my research included archival data available from published sources, such as Edgar, hosted by the Security and Exchange Commission, and annual reports provided by corporate websites and Yahoo.com. My quantitative correlational study consisted of two independent variables (environmental initiatives and CSR activities), and one dependent variable (profitability). Collecting the data required the investigation of disclosures and annual reports, where I compared the independent variables against the dependent variable.

Rovai, Baker, and Ponton (2013) stipulated quantitative studies include two or more numerical variables from a selected group of similar subjects, as the researcher attempts to determine if a relationship exists between the variables. Assembling the datasets required the investigation of archival disclosures from the selected organizations with environmental initiatives, and CSR activities noted by the corporation in their sustainability reports or compiled by independent monitoring organizations, and financial performance declared in their annual reports. I relied on Microsoft Excel 2016 provided by Microsoft Corporation, a popular spreadsheet application for collecting, comparing, and storing the data. Microsoft Excel 2016 does not require any permission to use other than maintaining a current license. A spreadsheet is suitable for managing the data, and Microsoft Excel 2016 includes many useful tools for statistical analysis (Rovai et al., 2013).

When conducting quantitative studies, Omair (2015) stipulated the purpose of the study is to test hypotheses with the requirement of using numerical data to support the findings. Herawati, Achsani, Hartoyo, and Sembel (2017) evaluated IPO stock valuation with secondary archival data. Carnevale and Mazzuca's (2014) study sought to test several hypotheses concerning the value of European banks with secondary archival data. Conducting a similar examination, Moore (2014) collected data from secondary archival sources. Like these studies, my study used archival data to analyze the research question.

Establishing the reliability of the study, researchers must ensure the instrument measures the variables appropriately (Heale & Twycross, 2015). Reliability of the instrument impacts the quality of the research (Heale & Twycross, 2015). In my study, complications for ensuring the validity of the instrument were minimal with the use of archival sources. A coding scheme for the presence of information concerning environmental initiatives and CSR activities was employed.

The data I collected involved no special instrument administration other than the time and expense required for researching corporate annual reports and disclosures. Information obtained from the financial reports included the net profit expressed in dollars. Profitability measures are integral to analyzing a company's performance (Margaretha & Supartika, 2016). Raw data collected for this study will be available in Appendix B to support the findings.

Data Collection Technique

The research question for my study examined the presence of a predictive relationship within U.S. industries between environmental initiatives, CSR activities, and

profitability of publicly traded companies. The technique I used for data collection involved searching for publicly traded corporations located in the United States with published financial and sustainability reports. I included archival data acquired from the 2017 and 2018 fiscal year SEC filings published on compilation websites including the company's investor relations websites and Yahoo.com. The data collected was restricted to net income and the presence of environmental and CSR disclosures and ratings. Annual audited financial statements provided the dependent variable of net profit. I obtained the two independent variables of environmental initiatives and CSR activities from sustainability disclosures and ratings provided by an independent organization. I based the environmental and CSR data on the company's disclosures and participation in summary ratings obtained from Sustainalytics.com, an independent monitoring organization. Archival data collection is suitable for researchers when other forms of data may prove difficult to acquire (Wohlin & Aurum, 2015). MS Excel was used to compile the data. Makwana and Rathod (2014) deemed Microsoft Excel as an effective data collection instrument. Data stored in Excel format is exportable to other statistical software programs, such as IBM SPSS (Dezhi & Shuang, 2014).

Secondary data collected from Internet databases offered advantages and disadvantages. Johnston (2014) indicated obtaining data from existing sources reduces expense and the need to create instruments. Additionally, the collection of data without the use of human participants minimizes ethical threats (Butler et al., 2012). Among the disadvantages of collecting secondary data from Internet sources include the potential of selection bias of the subjects chosen for inclusion (Briones & Benham, 2017). The data

required for compilation in my study was readily available for public use and did not require any special permission to use. I obtained access through Yahoo.com who provided both the annual net income and when available at the company's discretion, the ratings for three components of CSR obtained from Sustainalytics.com. The three components of CSR included environmental performance, social performance, and governance performance. For my study, I did not use corporate governance ratings. Failing a CSR rating on Yahoo.com, I investigated the corporation's websites for the documentation of any environmental and CSR activities.

Researchers use a pilot study to determine the feasibility of data collection and make alterations, as required for the research design (Sajid et al., 2016). Because I obtained data from archival sources provided by the corporation for public viewing, a pilot study was unnecessary. Carnevale and Mazzuca (2014) and Moore (2014) collected data from secondary archival sources, proving the feasibility of the proposed data collection process. Instead of conducting a pilot study, I obtained the required data for net income, environmental initiatives, and CSR activities from published Internet sources, and proceeded with the analysis on the assumption the information obtain was factually correct and did not require any further verification.

Data Organization

The data collected was organized on an MS Excel spreadsheet with columns for net income, environmental ratings, and social ratings. The trading symbols for the sampled companies were included in the original file in case I needed to return to the same company to clarify and verify the information. I omitted the stock symbols in the

final data file. Data were organized by sorting from high to low on the net income variable as this process made the work easier for removing outliers and visualizing the range of values for net income.

Data Analysis

The research question for this study was: What is the relationship within U.S. industry between environmental initiatives, CSR activities, and profitability? The null hypothesis ($H_0$1) is: There is no significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability. The alternative hypothesis ($H_1$1): There is a significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability.

Statistical techniques used to examine the relationship among variables include correlation, linear regression, and factor analysis (Pallant, 2016). Choosing a statistical procedure depends upon the number of factors, the research question involved, and the method of measurement (Tabachnick & Fidell, 2007). For my study, I used multiple regression to test the hypotheses. The multiple regression method was appropriate for this study because of only two independent variables predicting the outcome of the dependent variable. As a common statistical technique, multiple regression tests examine numeric independent and dependent variables with the intention of establishing a predictive relationship (Chen, Li, Wu, & Liang, 2014; Hopkins & Ferguson, 2014; Nathans, Oswald, & Nimon, 2012). Other treatments are available but not suited to this study, such as the Anova one-factor analysis, which requires three or more groups, each with a

unique treatment (Pallant, 2016). Researchers use *t*-tests, *z*-tests, and chi-square for different statistical analysis, particularly between groups (Pallant, 2016).

Data cleaning requires the researcher to identify missing records in the datasets (Hashem et al., 2015). Incomplete and invalid data require eliminating the record from the datasets (Kongara & Punyasesudu, 2015). As my study involved collecting the data from published secondary sources, samples with insufficient information were not included and represented minimal risk to the integrity of data. Deleting or not including samples are common approaches to cleaning the data (Cheema, 2014; Tasic & Feruh, 2012). The descriptive analysis will assist in viewing the data and determine the presence of outliers and other potential abnormalities (Butler et al., 2012). Descriptive analysis provides a preliminary view of the data with common statistical measures, such as mean, mode, count, and standard deviations (Boesch, Schwaninger, Weber, & Scholz, 2013). Graphical presentation of the data obtained from the descriptive analysis provides frequency tables, histograms, charts, and other insights, which visually examine the integrity of the assumptions (Bradley & Brand, 2013).

I primarily used Microsoft Excel 2016 because of my familiarity with the statistical add-in included with the software. Supplementing the MS Excel analysis, I used SPSS version 21.0 by IBM. SPSS offers a graphical presentation of the data, and I used the package for comparison purposes. During the comparison analysis, I found no difference between the regression and correlation output of MS Excel and SPSS. MS Excel analyzed the data and provided the necessary summaries, including the coefficient of correlation, coefficient of determination, and F-score. The correlation coefficient,

referred to as r, corresponds to the variation in variables (Wester et al., 2013). The correlation coefficient presents a value between -1 and +1 with a positive or negative score of 1, indicating a considerable correlation between the variables (Bishara & Hittner, 2012). A coefficient of correlation between .50 to 1.0 (positive or negative) represents a relationship between the variables (Tabachnick & Fidell, 2007). As the coefficient of correlation represents the sensitivity to the dependent variable as the independent variables change, obtaining a high score indicates a good statistical model.

Underlying statistical assumptions required consideration, as indicated by Pallant (2016). A histogram of net profit was used to verify the normal distribution of the data. Normal distribution of data appeared as a lump in the line in agreement with Pallant's summary. Histograms are used by researchers to visually view the data of the sampled population (Nunes, Alvarenga, de Souza Sant'Ana, Santos, & Granato, 2015). I viewed linearity through the P-P probability plot where the data followed a line through the data points, as outlined by Pallant. Hopkins & Ferguson (2014) proposed other techniques for normalizing the data, including transforming variables with mathematical functions, such as logarithm or squaring. I did not use normalizing techniques for my study.

Interpreting the results of my study required the use of standard statistical inferences, such as a confidence interval set at .95. Ives (2015) indicated a confidence level of .95 is typical for research, as the small *p*-value demonstrates a good fit of the model. Results of the analysis where variables hold a *p*-value of less than .5 provides the proof for accepting or rejecting the hypotheses (Ives, 2015).

Study Validity

Integral to research and revealing the potential truth of an inference, the validity of the study required consideration (Boesch et al., 2013). Assessing potential flaws affecting the findings of a researchers' study leads to the need to develop methods by which to address the concerns (Wester et al., 2013; Wisdom et al., 2012). Validity threats include external, internal, and statistical conclusion (Wester et al., 2013).

External validity represents the extent to which researchers can generalize their findings among the population with diverse circumstances (Johnston, 2014). A strategy for overcoming external validity threats involves obtaining a large enough sample of the target population is representative of the group (Bevan, Baumgartner, Johnson, & McCarthy, 2013). Selection bias can result if the sample is too small to represent the population sufficiently (Bevan et al., 2013). For this study, I determined the minimum sample size of 68 participants, which was selected based on the availability of information provided from published sources. Addressing the issue of external validity, I used a large sample size of 96.

Internal validity requires the researcher to control superfluous variables may distort the truth regarding casual relationships (Boesch et al., 2013). Primarily, internal validity impacts experimental and quasi-experimental studies and prevents the researcher from determining the causes of the findings resulting from changes in the independent variables (Boesch et al., 2013). The goal of my study was to determine evidence of an association and was not an experimental or quasi-experimental examination, limiting the threat of internal validity.

Potential threats to my study may arise out of the statistical conclusion. Statistical conclusion refers to the potential of Type I or Type II error (Wester et al., 2013). Wester et al. (2013) described Type I errors as the rejection of the null hypotheses, while Type II errors are the acceptance of the null hypotheses incorrectly. Possible threats to statistical conclusion include an instrument deficient reliability and validity check, assumptions to the statistical analysis lack satisfaction, and the usage of an inadequate sample size (Wester et al., 2013).

Transition and Summary

Section 2 of the study contained a plan and the rationale for conducting research intended to determine a relationship within U.S. industries between environmental initiatives, CSR activities, and profitability. The study used published disclosures, such as financial statements and sustainability reports provided by the corporations or tracked by independent organizations. The sample size of 96 companies was selected through convenience sampling techniques to avoid incomplete data and limit the requirement for data cleaning. Microsoft Excel 2016 was used as the primary software package to conduct a regression analysis. The output from the MS Excel's statistical add-on provided associated results for the coefficient correlation and the correlation of determination. The *F*-score determined if the variables were significant. Section 3 presented the findings, detailed data analysis, recommendations for further research, and implications for social change.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of my quantitative correlational study was to examine the relationship between environmental initiatives, CSR activities, and profitability in U.S. industries. My study focused on publicly traded companies located in the United States. I collected the names of companies from the Nasdaq directory and gathered data from the company's profiles. The research questions for my study focused on whether a relationship existed between environmental initiatives, CSR activities, and profitability. The independent variables were environmental initiatives and CSR activities. The dependent variable was the profitability of the firms, as documented by the company's income statement. The obtained information was from the most recent financial statement filings of either 2017 or 2018. The sample size included 96 companies operating in the United States. Based on the results of the regression analysis, $F(2,93) = 31.650$, $p = .00$, $R^2 = .405$, I rejected the null and accepted the alternative hypotheses, as a significant relationship does exist between environmental initiatives, CSR activities, and profitability. Interpretation of the results suggests companies with higher profitability are more likely to disclose and participate in environmental activities and CSR activities. This section includes an overview of the study, presentation of the findings, application to professional practice, implications for social change, and recommendations for further study.

Presentation of the Findings

For my study, I used a quantitative correlation design implemented with standard multiple regression data analysis features provided by MS Excel and IBM SPSS. I examined the relationship between environmental initiatives, CSR activities, and profitability. The data collection process entailed finding companies operating in the United States with listing on Nasdaq and NYSE, followed by viewing the company's profile on Yahoo.finance.com and the company's websites. Yahoo finance offers current financial information, selected ratios, and sustainability information, including the environmental, social, and governance (ESG) scores. The data obtained included the environmental and social scores from the ESG ratings when available and the net profit in dollars from the company's latest annual report. In the circumstances where a company did not participate in independent ESG ratings, I visited the organization's website for information about social and environmental activities. The data collected represented the information required to examine the hypotheses and determine if a significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability existed.

Outliers

Abnormal profits exceeding $1 billion or losses greater than -531.0 (million) introduced outliers into the dataset. Detecting outliers requires examining the dataset with boxplots, and they should be removed (Pallant, 2016). Eliminating outliers, I reduced the range of net profit and limited the data to an upper limit of $1 billion and a lower limit of

$-531.0 (net loss in millions). A box graph depicts the range of net profitability and the absence of outliers presented below in Figure 1.

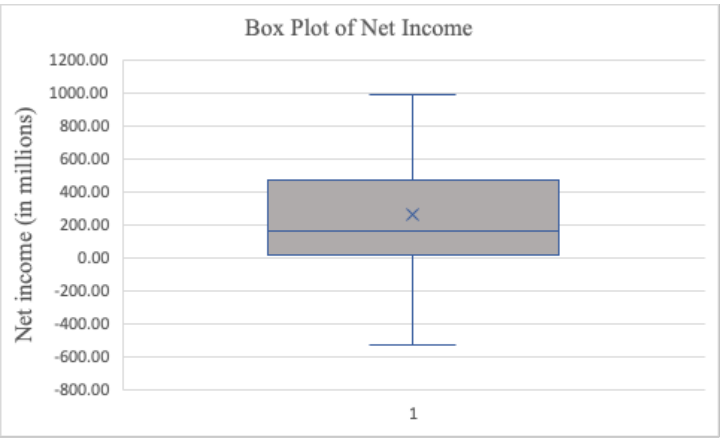

Figure 1: Box plot of net income. The sample size included 96 companies.

The boxplot represents the distribution of net income with the median value of $166.0 (million) represented by the line in the middle. The X represents the mean value of $266.96 (million). The gray area above and below the median value represents the distribution of most net profit values. Above and below the gray box, the line represents the upper and lower limit of the data. Outliers, if they existed, appear as circles above the upper and lower limits. With the range of data fitting a distribution without outliers, there was no need for further reduction in the net profit range.

Multicollinearity

Multicollinearity presented a challenge for analyzing the data, as nearly all companies participating in disclosing environmental information also disclosed CSR

information. Multicollinearity can lessen the impact of the regression model with large standard errors (Winship & Western, 2016). A coding scheme of 0 for no information provided and 1 if information existed for either the environmental or social variable resulted in high multicollinearity, therefore not suitable for statistical analysis. Overcoming the problem of multicollinearity, I rated companies with a range of values depending on the extent of disclosures and ESG scores for environmental and social activities. The mean of 56 for the companies included in the study with ESG scores was used to establish a benchmark. One standard deviation below or above determined the company's rating code recorded from 2 to 4. Table 2 illustrates the coding scheme used for my study.

Table 2

The Coding Scheme Used to Rate Companies on a Scale of 0 to 4

Code	Environmental	Social
0	No or minimal information found in the company's disclosure relating to environmental activities.	No or minimal information found in the company's disclosure relating to social activities.
1	Information found in the company's disclosers relating to environmental activities. Beyond the legal requirements and suggesting participation in environmental initiatives. Not independently verified and listed by compilation and tracking organizations.	Information found in the company's disclosers relating to social (CSR) activities. Beyond the legal requirements and suggesting participation in social activities. Not independently verified and listed by compilation and tracking organizations.
2	An ESG score of 45 or less. Below average ratings provided by an ESG tracking organization. A rating of 1 standard deviation below the average of the corporations included in the study.	An ESG score of 45 or less. Below average ratings found on compilation and tracking organizations. A rating of 1 standard deviation below the average of the corporations included in the study.
3	An ESG score of between 46 and 67. Average ratings provided by an ESG tracking organization. A rating within 1 standard deviation below or above the mean for the corporations included in the study.	An ESG score of between 46 and 67. Average ratings provided by an ESG tracking organization. A rating within 1 standard deviation below or above the mean for the corporations included in the study.
4	An ESG score above 68. Average ratings provided by an ESG tracking organization. A rating above 1 standard deviation above the mean for the corporations included in the study.	An ESG score above 68. Average ratings provided by an ESG tracking organization. A rating above 1 standard deviation above the mean for the corporations included in the study.

Descriptive Statistics

Descriptive statistics for the dependent variable of net profit indicated a mean of $262.96 million, median of $166.0 million, the standard deviation of $315.28 million, range of $1,522.0 million, with a count of 96 samples. Descriptive statistics are used to evaluate the integrity and logic of a dataset (Pallant, 2016). Table 3 displays the descriptive statistics for all variables. Descriptive statistics of the environment and CSR codes appear in columns 2 and 3.

Table 3

Descriptive Statistics of the Dependent and Independent Variables

Net profit		*Env code*		*Social code*	
Mean	262.965	Mean	1.677	Mean	1.677
Standard error	32.179	Standard error	.150	Standard error	.156
Median	166	Median	2	Median	2
Mode	-31	Mode	0	Mode	0
Standard Deviation	315.285	Standard Deviation	1.469	Standard deviation	1.525
Sample variance	99404.387	Sample variance	2.158	Sample variance	2.326
Kurtosis	-.211	Kurtosis	-1.546	Kurtosis	-1.673
Skewness	.515	Skewness	.111	Skewness	.074
Range	1522	Range	4	Range	4
Minimum	-531	Minimum	0	Minimum	0
Maximum	991	Maximum	4	Maximum	4
Sum	25244.609	Sum	161	Sum	161
Count	96	Count	96	Count	96
Confidence level (95.0%)	63.883	Confidence level (95.0%)	.298	Confidence level (95.0%)	.309

Correlation Analysis

A correlation of coefficient analysis determined the magnitude of linear association between the independent and dependent variables. Correlation of coefficients analysis examines the potential strength of the relationship between the variables (Field, 2018). The correlation between the environmental and social codes showed a strong relationship of 0.949 and was significant at $p < 0.01$. The correlation between net profit, environmental, and social codes was not as strong but significant at $p < 0.01$. The level of significance for my study was $p < 0.05$. Table 4 depicts the correlation of coefficient results.

Table 4

Correlation of Coefficients for the Variables

	Net profit	*Env code*	*Social code*
Net profit	1		
Env code	.614**	1	
Social code	.635**	.949**	1

Note: ** Correlation is significant at 0.01 level (2-tailed).

Histograms

A histogram of the dependent variable of net profit revealed the highest frequency of net profits between $-51.0 to $189.0 million for 45 companies (see Figure 2). Figures 3 and 4 present the histograms for environmental and social codes. The largest frequency for both environmental and social variable codes fell between 0 and 1, compatible with my study for comparing the profitability of companies with and without ESG ratings. The highest frequency for companies with ESG ratings was average and scored as a 3.

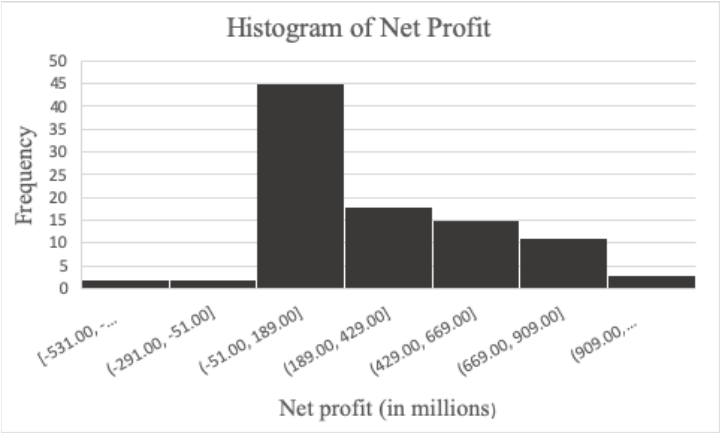

Figure 2. Histogram of the dependent variable of net profit.

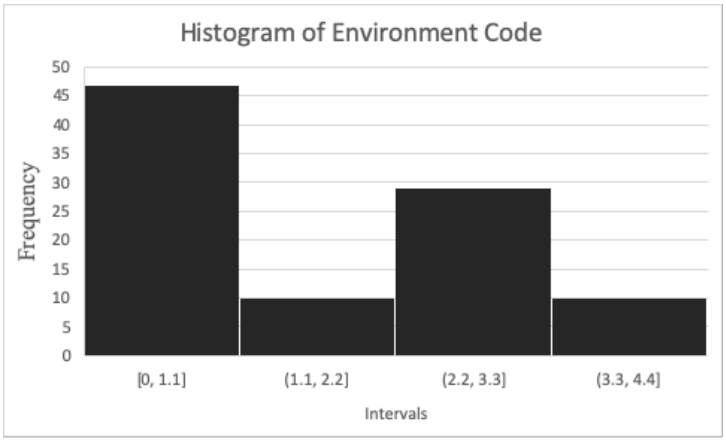

Figure 3. Histogram of the independent environment code.

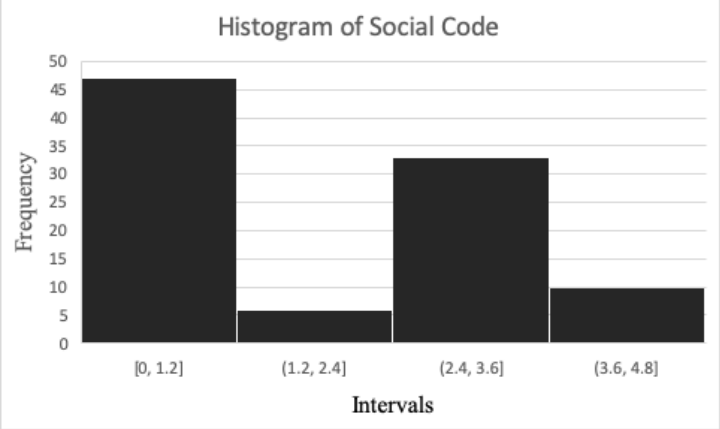

Figure 4. Histogram of the independent social code.

Regression Analysis

The regression analysis demonstrated a relationship between environmental initiatives and CSR activities with a multiple R of .636 and R^2 of .405. The $F(2,93)$ of 31.650 and significant F of .00 justifies the rejection of the null hypotheses, concluding a significant difference existed among companies who disclosed environmental and CSR information over those who do not. Therefore, the alternative hypothesis is accepted. (H_1): There is a significant relationship within U.S. industries between environmental initiatives, CSR activities, and profitability. The p-value of the environmental variable is not significant at $p = .651$ ($p > .05$). The p-value of the CSR variable is significant at $p = .041$ ($p < .05$). A multiple R of .636 demonstrated the significant strength of the correlation with a corresponding R^2 of .405. Table 5 presents the regression output from MS Excel. Figure 5 illustrates the normal P-P normal probability plot of the net profit variable. Figure 6 depicts the box chart illustrating the increase in the mean net profit variable as the environmental and CSR variables increase from 0 to 4.

Table 5

Regression Output from MS Excel, Demonstrating the Relationship Between the Dependent and Independent Variables

Regression statistics	
Multiple *R*	.636
R Square	.405
Adjusted *R* Square	.392
Standard error	245.801
Observations	96

ANOVA

	df	***SS***	***MS***	***F***	***Significance F***
Regression	2	3824513.969	1912256.985	31.650	3.276E-11
Residual	93	5618902.790	60418.310		
Total	95	9443416.759			

	Coefficients	*Standard error*	t *Stat*	p-*value*
Intercept	39.129	38.210	1.024	.308
Env code	24.755	54.466	.455	.651
Social code	108.712	52.457	2.072	.041

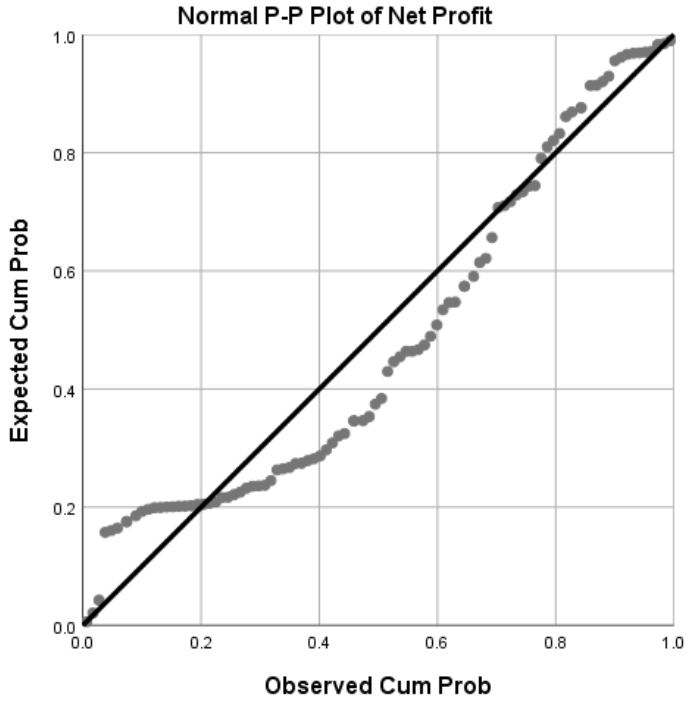

Figure 5. Normal P-P probability plot of net profit dependent variable.

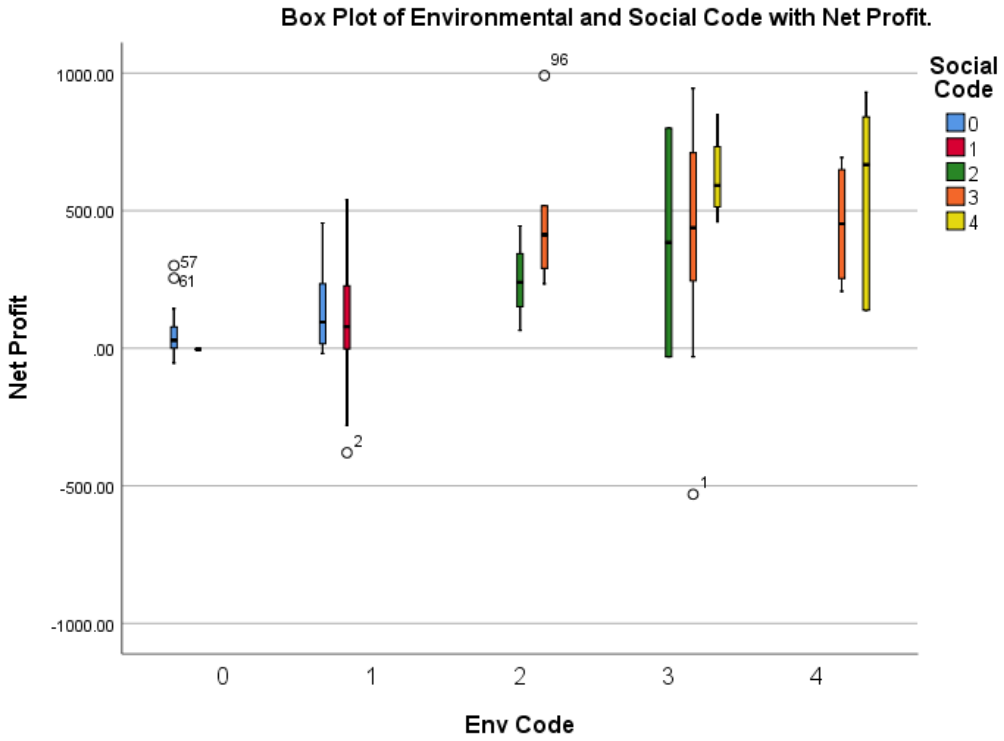

Figure 6. Box plot of environmental and social code with net profit.

Applications to Professional Practice

The purpose of this quantitative correlational study was to examine within U.S. industries the relationship between environmental initiatives, CSR activities, and profitability. The target population comprised of archival data from industrial companies located in the United States. The independent variables were the companies' self-declared willingness to undertake environmental initiatives and CSR efforts, as demonstrated in published disclosures. The dependent variable was the profitability of the company determined by their annual reports released in 2017 or 2018. This study may have implications for social change because businesses may reduce their environmental

footprint and improve their CSR activities if they can ascertain these actions will not impact profitability.

The results of my study reflect the growing concern stakeholders pose for business leaders. With social issues and stakeholder activism on the rise, companies feel pressured to contribute in positive ways to social wellbeing by improving the lives of their employees and community (Col & Patel, 2019). Perrault and Clark (2016) found a correlation between stakeholder activism and the shaping of management business decisions for environmental and CSR practices. Perrault and Clark attributed managements' sensitivity to pressure from stakeholder activism as a threat to the firm's legitimacy and long-term sustainability. Dekker and Hasso (2016) uncovered a relationship between environmental and CSR responsibility among closely held corporations, particularly when the corporation's management were high profile members of their community of operation. Companies participating in CSR reporting may undertake the documentation of their social improvement programs for reasons including public relations, adding value to their company, and contributing to the wellbeing of their region(s) of operations (Cuervo-Cazurra, 2018). The results of my study demonstrated an increase in profitability as participation in CSR and environmental initiatives increases, with the most profitable corporations showing leadership in the growing trend toward social responsibility.

Business leaders may use the results of my study to justify CSR participation, as the findings indicate a strong relationship between profitability and CSR disclosures. Companies participating in CSR reporting may undertake the documentation of their

CSR programs for reasons including public relations, market valuation, and to contribute to the wellbeing of their region(s) of operation (Cuervo-Cazurra, 2018). Cuervo-Cazurra (2018) indicated the rise of CSR reporting grew in standard business practice, as stakeholders began scrutinizing the company's impact on society and the environment. If the goal of management involves growth with higher revenues and a corresponding increase in net income, business leaders should be aware of the impact undertaking environmentally initiatives and CSR activities has on their operations and reputation. The results of my study indicated companies with higher net income disclose their environmental and CSR activities to the public, setting a standard for smaller operations to follow.

Implications for Social Change

Corporate stakeholders are concerned with the degradation of the environment and wellbeing of society, generally summarized by CSR (Col & Patel, 2019). Undertaking rigorous programs intended to protect the environment and contribute to the wellbeing of society may appear at odds with the primary purpose of producing profits (Freeman, 1984). Environmental and social activism seeks to make business leaders aware of the importance of keeping their operations and reputation in good standing among stakeholders (Friedman, 1970). Lacking standards for CSR reporting, Col and Patel (2019) believed the practice had widened information asymmetry, adding doubts to the value of the information companies disclose. With social issues and stakeholder activism on the rise, companies feel pressured to contribute in positive ways to social

wellbeing by championing enrichment programs, funding important social causes, and improving the lives of their employees and community (Col & Patel, 2019).

Recommendations for Action

My correlational study revealed an upward trend among the largest and most profitable corporations operating in the United States who provide transparency with environmental and CSR disclosures. In contrast, most international corporations offer environmental and CSR disclosures with a large percentage obtaining independent verification of their disclosures, often required by governmental authorities (Kunz, 2018). Reporting standards are not settled but with the rise of several organizations such as the Carbon Disclosure Project, Global Reporting Initiative, and International Organization for Standardization, frameworks for CSR reporting have begun to take shape (Kunz, 2018). Worthy goals for U.S. corporations may involve improving their participation in CSR activities and reducing their environmental footprint, thereby improving their standing among stakeholders. Convincing business leaders may require overcoming the objection over the costliness of CSR programs, retooling operations with efficient equipment, and altering operations to reduce environmental degradation. Ideally, companies should undertake CSR commitments voluntarily rather than waiting for the enactment of government regulations, such as those handed down from the Environmental Protection Agency.

Recommendations for Further Research

My study investigated the correlation of environmental initiatives, CSR activities, and net profits, and found a relationship between higher net profit in dollars among

companies offering environmental and CSR disclosures. Net profit in dollars is a volatile measure influenced by many factors, the least of which are the independent variables in my study. Further studies are needed to establish a correlation by examining common ratios, such as net profit percentage, return on assets, return on investment, and market value measures.

Reflections

In preparing for this study, I anticipated not finding any significant difference between companies disclosing environmental and CSR activities and companies who did not. The reason for my initial assessment involved knowledge of the methods used for pricing products. Higher manufacturing costs become absorbed into the pricing structure resulting in higher prices to consumers. Efficiency and automation may help mitigate the expense of manufacturing products. For those companies unable to manufacture a product within an acceptable price range, moving operations offshore to countries with lower regulations has become the standard mode of operations, i.e., imports from Asia. The results of my study indicated the largest companies in the United States endeavor at improving their CSR despite the potential for uncompetitive pricing of their products.

Conclusion

With rising concern in global climate change, people scrutinize corporations, blamed as the leading cause of environmental degradation and social inequities. For centuries, environmental issues went unnoticed, and we can see evidence of activities in many ways from the loss of natural resources, clean water, clean air, and degradation of land including forests, grasslands, and natural habitats across the world (Chandok &

Singh, 2017). Chandok and Singh (2017) indicated businesses may not be entirely the blame but are an easy target for assigning responsibility. As the primary purpose of a business endeavor is to increase stockholder value (Friedman, 1970), issues of environmental stewardship and social responsibility may seem at first secondary, but stakeholders hold influence over business operations and can bring about change through activism (Freeman, 1984).

The results of my study indicate a realization among the largest corporations to address the need for CSR activities. Business leaders of large corporations have reason to fear the wrath of stakeholders and take steps to reduce the potential of negative publicity and embarrassment by improving their social and environmental standing (Perrault & Clark, 2016). Failing to provide transparency into their operations, business leaders may struggle to find financing from investors (Kunz, 2018). Muslu, Mutlu, Radhakrishnan, and Tsang (2019) found a relationship between CSR disclosures and lower capital costs among companies operating globally, an additional benefit for offering transparency into the firms' activities. Kunz (2018) also found evidence of the need for CSR reporting among companies in search of financing from financial institutions. In global regions where a free press exists, El Ghoul, Guedhami, Nash, and Patel (2019) found a relationship between robust CSR participation, as opposed to countries where the free press does not exist, suggesting a concern among business leaders over negative publicity. In conclusion, companies wanting to remain in the good graces of stakeholders and grow their organization should participate in robust measures intended for reducing their environmental footprint and enhancing social responsibility.

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Appendix: Data Collected

Net Profit	Env Code	Social Code
-531.00	3	3
-379.82	1	1
-279.97	1	1
-53.91	0	0
-50.03	0	0
-44.77	0	0
-31.00	3	2
-31.00	3	3
-19.21	1	0
-10.44	0	0
-6.54	0	0
-3.55	0	1
-3.03	0	0
-2.15	1	1
-1.79	0	0
-0.85	3	3
-0.48	0	0
0.52	0	0
2.76	0	0
3.02	0	0
4.91	0	0
7.44	0	0
15.33	0	0
16.01	1	0
20.88	0	0
25.37	0	0
32.28	0	0
35.63	0	0
36.27	0	0
37.20	0	0
45.40	1	1
63.11	0	0
65.10	2	2
67.02	0	0
73.49	0	0

74.00	0	0
78.15	1	1
81.20	0	0
85.37	0	0
94.80	1	0
105.60	0	0
116.10	0	0
119.60	3	3
138.16	4	4
138.16	4	4
138.51	0	0
144.36	0	0
162.00	1	1
170.00	3	3
207.10	4	3
220.43	3	3
226.96	1	1
234.26	2	3
234.46	1	0
236.66	2	2
242.91	2	2
254.53	0	0
269.60	3	3
290.00	2	3
299.75	4	3
300.36	0	0
321.70	3	3
321.70	3	3
335.26	3	3
354.50	1	1
360.30	3	3
389.80	2	3
434.90	2	3
437.88	3	3
444.20	2	2
455.05	1	0
460.00	3	4
469.19	3	3
470.00	3	3
517.84	2	3

539.80	1	1
552.46	3	3
567.00	3	4
605.20	4	3
616.50	3	4
627.40	4	4
627.40	3	3
693.00	4	3
694.08	3	3
707.00	4	4
727.00	3	3
800.00	3	2
821.26	3	3
841.00	4	4
848.66	3	4
851.40	3	3
857.81	3	3
864.00	3	3
930.70	4	4
944.40	3	3
991.00	2	3